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ART. I.—*An Essay on Diet in Health and Disease.* By JOHN DAWSON, M. D., of Jamestown, Ohio.

[CONCLUDED.]

THE DIET IN URINARY CONCRETIONS.

Incident to the performance of their functions, the urinary organs are liable to diseases that are sometimes produced by, and are always more or less under the control of, the food. Among the disorders affecting this apparatus, and the only ones to which we intend to allude, are *urinary concretions.* It is but a few years since Scheele took the first successful step towards the elucidation of this subject. Yet notwithstanding this, his labors in conjunction with those of Wollasten, Pierson, Fourcroy, Vauquelin, Henry, Brande, Prout, Marcet, and Bird, have enriched this field with many new discoveries, and rendered it among the most interesting de-

partments of medical research. The composition of healthy urine has been so accurately determined, that alterations taking place in it from any cause whatever can be very readily and certainly ascertained. Of only some of these, and the conditions of the general system that attend them, is it our present purpose to speak in connexion with the food proper for their correction.

Lithic or Uric Acid Diathesis.—In a healthy condition of the organism, it is known that the urine always exhibits acid properties, turning litmus paper red, &c. This, according to Prout, who is high authority on everything connected with diseases of the urinary organs, is not because the fluid contains a free acid, but because the alkaline and earthy bases are not neutralized, but exist in the state of super-salts. The acid properties then depend upon the presence, in the urine, of lithic or uric acid in commbination with ammonia, giving rise to the supersalt called lithate of ammonia. Pure lithic acid is nearly insoluble, and hence, when the ammonia with which it is combined comes in contact with any other acid for which it has a stronger affinity than for the lithic, this latter is precipitated in the form of what is generally known as the lateritious sediment, the particles of which concreting together form gravel, or calculi. To the condition of the system giving rise to this kind of deposit, pathologists attach the name of lithic diathesis. A confirmed diathesis is necessary in order to the production of gravel, which sometimes takes place by accretions in the kidneys, at other times in the bladder.

Nearly always, there is associated with this diathesis a broken down, disordered condition of the digestive functions arising from intemperance, habits of debauche, or gluttony. This state of things disorders all the emunctories more or less, but the kidneys are predominantly affected; and as a consequence elements make their appearance in the urine not proper to this fluid, and which in a normal condition of the system would seek egress in a different direction. Concern-

ing, however, the proximate cause, if it might be so termed, of the urinary deposit under consideration there has been of late much interest manifested, and as a consequence several theories in relation to the subject have been proposed.

Liebig supposes that when from any cause a portion of any tissue becomes unfit for use, or for the performance of its functions, its elements, under the influence of the oxygen conveyed to it in arterial blood, become re-arranged in such manner as to give rise among other compounds to uric acid. More or less of this becomes converted into urea and carbonic acid, the former escaping by the kidneys, the latter from the pulmonary and cutaneous surfaces. Where the circulation is rapid, respiration perfect, and consequently a good amount of oxygen introduced into the system, the change is complete. There is then no excess of uric acid, relatively to the urea, developed. But when these functions are at fault, respiration and circulation being sluggish, the presence of abnormal proportions of uric acid are found in the urine as a deposit. If these views be correct, the presence of uric acid in the kidneys depends upon the imperfect introduction of oxygen into the system. Uric acid, Liebig tells us, disappears in the urine when there is received through the skin and lungs a quantity of oxygen sufficient to oxidize the products of the transformed tissues.

According to Liebig there ought to be an excess of uric acid in the urine of all those animals where there appears to be naturally a slow, imperfect condition of the functions of respiration or circulation; and also in all the diseases where these functions are prominently at fault. So far as some animals are concerned the doctrine holds good. Serpents with a sluggish condition of the respiration and circulation have so much uric acid present in the urine as to render it nearly solid. An opposite condition of the urine is present in carnivorous mammalia, where these functions are more perfect. But how on this hypothesis can the fact be explained, that some birds that have a circulation, respiration, and animal heat superior to man, have so much urate of ammonia in their

urine as to render it semi-solid? I allude to those marine birds inhabiting parts of South America, and which cover certain localities completely over with discharges of urate of ammonia, known in commerce as a valuable manure under the name of '*guano.*' Again, according to the same author, we should have the uric acid deposited in all diseases in which the circulation and respiration are below the healthy standard. Becquerel's observations do not confirm such a position. He found in chlorosis the ratio of urea to uric acid equals, and sometimes exceeds, the healthy proportion.—Bird also states that in pulmonary emphysema, in which only an imperfect arterialization of the blood can take place, as is evinced by the blue lips, cold extremities, &c., there is less uric acid found in the urine than in health. Passing to an opposite class of cases, in which, from the more perfect oxidation of the blood caused by the rapid circulation and respiration, there should, if the doctrine under consideration is correct, be a deficiency of uric acid, and an abnormal proportion of urea. Take, for example, phthisis pulmonalis where in the opinion of Liebig the patient is oxidized to death, and what do we find to be the case? Bird assures us that the quantity of uric acid is greater than in health, and the relative proportions of urea less, which is precisely the reverse of what Liebig's theory requires.

Taking it as a well established fact that uric acid exists in the urine in combination with ammonia, Bird supposes that any change occurring which removes the ammonia must necessarily be attended with a deposit of the insoluble acid. By the researches of Prout two acids have been proved to exist in the body, in the free state,—the lactic and the muriatic. They are both found in the stomach, and the lactic is known to be excreted at the cutaneous surface. Now anything interfering with the assimilative functions, or with the action of the emunctories would, as a consequence, derange the excretion of these acids, and compel them, perhaps, to seek an outlet by the kidneys, where, by combining with the ammonia of the urate, they would cause the precipitation

of lithic acid in the free state, and thus become a primary cause of gravel.

The opinion of Prout concerning the cause of the deposit under consideration differs but little from that of Bird. Both of these authors, eminent in the literature of diseases of the urinary organs, regard the lithic acid deposit as the result of primary disease, functional and structural, in the assimilative organs attended with a deranged condition of the excretions.

Seguin's experiments on cutaneous transpiration show conclusively that the exhalation from the skin is very much under the influence of the stomach. This author found that the exhalation is always less abundant after taking food; and when the digestive functions are impaired it is sensibly lessened, thus establishing indirectly the opinions of Bird and Prout, that compounds which in health are excreted at the cutaneous surface, are, when the assimilative functions are at fault, either retained in the circulation, or removed by the vicarious office of the kidneys.

With respect to the treatment of the lithic diathesis, all know that it is impossible to dispense with a certain kind of drugs, namely, alkalies. Next, however, in point of importance is the proper selection and regulation of food. Every author of any eminence acknowledges the correctness of this position. Even Liebig, who regards this kind of urinary accretion as the result of derangement of what is sometimes called the secondary destructive assimilation, the re-union of the effete parts of the tissues with the blood, looks upon the proper regulation of diet as an indispensable part of the treatment.

In prescribing food for a person laboring under this diathesis, the objects in view should be, to restore the digestive functions to a healthy condition, and to obviate, as far as possible, the tendency to the formation of free lithic acid. In fulfilling the first indication, the quantity, quality, &c., of the food should be strictly regarded. Where the trouble has ori-

ginated from excess of food or high living, which according to all observers is frequently the case, the quantity, of course, should be reduced. As Abernethy says, the supplies should be cut off in order that the enemy may vacate the citadel. Too much food at even a single meal gives rise to what is called the *urina cibi*, which deposits uric acid more copiously than either of the kinds called *urina chyli* or *urina sanguinis*. The quantity, therefore, whatever may be the condition of the stomach, must be regulated by the ability which this organ possesses to digest it. Unless completely digested the smallest quantity operates as an exciting cause of the complaint; while on the contrary a quantity that might be considered liberal, may, by invigorating the general powers of the system, operate indirectly as a means of correcting the diathesis.

If it be taken as an established fact that the urine frequently exhibits the physical and chemical properties of the food, there can be left no doubt upon the mind of any, that the quality of the food in the disease before us is entitled to a careful consideration. While all who have any claims to a critical knowledge of urinary deposits, freely admit the truth of the above statement, it is to be regretted that there is not that entire unanimity of opinion in relation to the qualities most available in the treatment, that could be desired. All who favor the opinions of Liebig contend that non-nitrogenized articles, such as those containing large proportions of starch, fat, butter, and sugar, (elements as they suppose of respiration), by combining with the oxygen of the inspired air prevent that peculiar kind of metamorphosis from going on in the tissues that opposes the formation of free uric acid.—These articles, however, are objected to by those who differ with Liebig from other considerations. It is thought by Prout, Bird, and others, that they are contraindicated from the facility with which most of them are first converted into sugar and afterwards into acids. It is with respect to the propriety of food rich in nitrogen that Liebig and Prout are especially at issue. The former says that there are no rea-

sons which support the opinion that nitrogenized food has any influence in the formation of urinary calculi; while the latter assures us that imperfectly assimilated azotised food is often eliminated by the kidneys as urate of ammonia. Bird coincides with Prout on this point, and says, if the ill-digested meal is composed of food rich in nitrogen, as meat or fish, more uric acid, *cæteris paribus*, appears in the urine than if highly carbonized ingredients, as bread, potatoes, &c., had been used. Future experiments must settle this matter in dispute between these illustrious philosophers. In the meantime Prout, from his very accurate knowledge of the subject in general, we should be disposed to take as our guide. To articles of diet or drink containing acids in anything like excess there is pretty general objection. According to all observations they favor the precipitation of the uric acid, and as a consequence are contraindicated. In anything like a good condition of the stomach there is reason to believe that the vegetable acids are digested. But this, in the lithic diathesis, is so seldom the case that they are regarded as a very fruitful source of embarrassment. With respect to the propriety of adopting the most digestible quality of food, there is no diversity of opinion. This is a general rule, without the observance of which, no patient can be benefitted by any plan of treatment.

Phosphatic Diathesis.—This state of the system differs widely from that of the lithic diathesis. It is the very opposite, for here the urine is alkaline. Both conditions agree in owing their origin to a faulty condition of the functions of assimilation. On this account it will be unnecessary to do any thing more than merely to advert to the morbid state of the digestive organs, and to the concomitant phenomena that are usually present; for, so far as we know, there are no peculiarities by which the predisposing mischief in the two diatheses can be distinguished.

According to Bird 6·5 grains of phosporic acid leave the system in the urine every 24 hours. The particular state in

which this acid exists is a matter of doubt. A considerable portion of it is present in combination with lime, magnesia, and ammonia, forming a double salt, the ammonio-phosphate of magnesia, or triple salt, as it is usually called. These salts, it is supposed, are held in solution in healthy urine by the free acid always present. If, now from any cause the acid falls below the proportion necessary to keep them in a soluble condition, the earthy phosphates are deposited in the urine in the form of a white gravel, occasionally grey; sometimes amorphous, at other times crystalline, and composed generally of phosphoric acid, ammonia and magnesia; sometimes of phosphoric acid and lime. Prout gives an explanation of the pathological chemistry by which the calculous concretion under consideration is formed, that is somewhat different from this. The phosphate of magnesia it is known is contained in healthy urine, and because of its being very soluble is dissolved in that fluid. Under certain circumstances, however, the urea of the urine becomes decomposed in the kidneys and ammonia is extricated, which, combining with the phosphate of magnesia, forms an insoluble compound, the phosphate of ammonia and magnesia. Usually the urine is pale, but when the phosphates are very abundant it becomes turbid; is of low specific gravity; smells differently from healthy urine; is sometimes sufficiently alkaline when voided to turn turmeric paper brown; and becomes after standing awhile putrid, and highly offensive. The more decided and intense the diathesis the more these characters are developed.

To insist on the utility of regimen in this affection is unnecessary. Much of what we have said in relation to the quantity, &c., of the food in the lithic diathesis is applicable here. No medicine, not even nitric or muriatic acid, the main articles relied upon in the treatment, is of any avail unless such measures are adopted as are calculated to give tone and energy to the organs of assimilation. The use of a diet properly regulated is the only foundation upon which any reasonable hope of cure can be predicated. Depressed by the debility resulting from mischief in the blood-making ap-

paratus, the organism is unable to assist the play of affinities by which this accretion takes place, and the only chance of successfully overcoming it, is by removing the cause. By the adoption of a generous diet, and such other hygienic measures as will economise the resources of the system, the object may be accomplished. Articles in this diathesis containing an excess of some of the vegetable acids are by no means contraindicated. On the contrary they may be of some service in overcoming the alkaline state of the urine. From the acknowledged efficacy of opium in rendering alkaline urine acid there is good reason to believe that alliaceous vegetables, if rightly prepared, might prove to be a very valuable kind of diet in this form of urinary disease. Of course, they should be well cooked to deprive them of the acrid volatile oil which they contain.

Concerning the animal aliments best adapted to this affection, we have no diversity of opinion. All agree that the most digestible and nutritious are to be preferred. Mutton, which according to the analysis of Brande contains a greater amount of nutritious matter than the other kinds of flesh in common use, is on this account, where it is in consonance with the feelings of the patient, well calculated to promote the object in view. The flesh of the common chicken, from its nutritive and digestible qualities, is also a very valuable article. For drinks, water made sour with acid wines (claret or hock), or with the aurantaceous fruits, will answer a better purpose than the common beverages, tea and coffee. But although drinks subserve so many purposes in the animal economy, it should nevertheless always be recollected, that they dilute the gastric juice, and if taken too freely impair thus the process of chymification.

Oxalic Diathesis.—This is that condition of the system in which there is a tendency in the kidneys to the formation of oxalate of lime, or what is usually called the *mulberry calculus.* The phenomena attending it, and, to a certain extent, indicating it, do not differ materially, so far as the general

system is concerned, from what are present in other kinds of calculi. Here also patients are dyspeptic, emaciated, nervous, hypochondriacal, irritable in temper, at times very excitable, deficient in sexual power, and most commonly afflicted with a sense of weight or pain across the loins. The skin, according to Prout, in cases where the diathesis is strongly marked, assumes a dull greenish yellow, or dark olive color. The urine is strikingly characterized by its bright clear appearance, and by being entirely free from deposits, the oxalate being diffused through it in a crystalline form. In addition to the oxalate of lime, the urine, in one-third of all the cases that came under Bird's observation, contained urates in large excess, and in some instances phosphates.

From the fact that most of the symptoms are common also to diabetes mellitus, and from the known facility with which sugar and its chemical allies, starch, gum, and wood fibre, under the influence of oxidising agents, are converted into oxalic acid, Prout came to the conclusion that the oxalate of lime owes its origin to the transmutation of sugar. In his work on physiological and pathological chemistry, Liebig traces the source of oxalic acid not to any changes made upon sugar, but to the oxidation of uric acid. "In France," he tells us, "it is a common occurrence among patients suffering from calculous complaints, that when they go to the country where they take more exercise, the compounds of uric acid, which were deposited in the bladder during their residence in town, are succeeded by oxalates (mulberry calculi), in consequence of the increased supply of oxygen." Bird, in relation to this matter, differs but slightly from Liebig. He concludes that the oxalic acid is the result of a re-arrangement of the elements of urea, in which process there is a portion of oxygen given up.

As all know, nitric acid, from the fact that it is capable of dissolving this kind of concretion, is the drug to be used. And we may judge of the propriety of putting the patient at once upon a suitable diet from the following remarks of

Bird:—that there are "some articles of food at once causing the excretion of this substance (oxalic acid) in great quantities, whilst others have an effect of totally checking it." The food, therefore, should be regulated so as to improve the condition of the digestive organs and prevent, as far as possible, the introduction into the stomach of those articles containing oxalic acid, or which from their chemical composition would be likely to be changed into that substance. The remarks elsewhere made in reference to the proper mode of improving the condition of the stomach are applicable here, and need not be reiterated. But the quantity of the food requires a brief consideration. Aliments containing the vegetable acids are of doubtful propriety. The same may be said of saccharine articles, as well as of everything easily changed into sugar. Those substances containing the oxalic acid, as the young stalks of the rhubarb plant, which are now of such general use in our country, and the *sorrel*, (oxalis acetosella), used so much by the French as a sallad, should be rigidly excluded from the diet. Food well cooked, digestible, and derived in about equal proportions from the animal and vegetable kingdoms, is, all things considered, about as available as any that can be selected. Some attention should be paid to the character of the drinks. Hard water, from the lime which it contains, may exert an unfavorable influence, and on this account, where it is practicable, should be avoided.

DIET IN TYPHUS FEVER.

Impressed with the importance of so managing the diet in fever of all kinds, as to secure the greatest possible amount of good without producing any injury, have been all the distinguished medical men from the remotest periods of antiquity. Quite early the opinion became prevalent that, in the treatment of this numerous class of diseases, a vast amount of mischief was caused by the improper use of articles designed for nourishment. From frequently witnessing this

result, some came to the conclusion, that success depended as much upon what was regarded as judicious regimen as upon medicine.

We will pass briefly in review some of the doctrines held by the ancients on this subject.

Hippocrates "*On the Method of Diet in Acute Disorders*," gives the foundation of all the correct rules which pertain to dietetics in the treatment of fever connected with a high grade of arterial excitement. And so much did he insist upon their strict observance that his plan of treatment, by one, (Asclepiades) has been spoken of "as merely a contemplation on death." Although abstinence was a favorite measure with the Father of medicine in commencing the treatment of what, in his day were called *acute* fevers, he, nevertheless, says that "a diet which is a little too plentiful is much safer than that which is too sparing and thin." Celsus carried his opinions concerning the utility of regimen, perhaps, to an unwarrantable extent. In his judgment food seasonably given, according to Glass's quotation from him, is the best medicine in fever. Valentini also quotes him as saying "Multi magni morbi curantur abstinentia et quiete." Riverius was not behind his day in regard to this matter. "As for the point of nourishment," he remarks, "the diet ought to be thin and sparing in acute fevers. And therein the ancients were so severely diligent as to place the greatest part of the cure in ordering the diet." After this commendation of the plan of the ancients, he goes on to express himself in terms of censure concerning the customs of his own day: "But in our times, at least our country, by the refractoriness of women, who fear nothing but that the sick persons shall be starved, as all their care in a manner is to cram their children with meat like pudding bags, how empty their brains of wit, or their hearts of grace and wisdom matters not; and the indulgence of physicians, who the best of them smell too strong of the mountebank, it is grown into a fashion in all fevers, the most violent and acute, to allow the sick at all times broths of the flesh of hens, chickens, capons, and mutton."

The eccentric Van Helmont had his own notions about diet. He remarks: "this is the truth of diet which nature doth of her own accord shew and teach and let that thing be one perpetual, that whosoever hath obtained the best remedies of secrets, and he presently restoreth the sick, so also he prescribeth no other diet for sick than for healthy folk. For to the healthy all things are accounted healthy, because the digestive ferments do powerfully draw and restrain all things into their own jurisdiction. And so digestion doth prescribe the rules of diet."

Tissot, a French author of the last century, took very strong grounds in favor of abstinence in all kinds of fevers. "The most observing persons," he says, "constantly remark that when a feverish patient sups what is commonly called some good broth, the fever gathers strength and the patient weakness. The giving of such a soup or broth, though of the freshest and soundest meat, to a man who had a high fever or putrid humors in his stomach, is to do him exactly the same service as if you had given him two or three hours later stale putrid soup." After remarking that it is a very fatal prejudice, under which some labor, of trying to keep up the patient's strength by food, he adds, "the only things which can strengthen sick persons are those which are able to weaken their disease."

In his work "On Diseases of the Army," Pringle makes some very correct remarks in relation to the utility of a nourishing diet in putrid fever. He thinks the putrid diseases, so prevalent anterior to his time, were in a great measure suppressed by the introduction of sugar into general use, which he regards as a very powerful antiseptic. Huxham was also aware of the propriety of a nourishing diet in fever of a low grade of action. He says: "Indeed, as these fevers run very often out to a great length of time, supporting drinks and diet are necessary, without which the patients certainly sink under them."

Cullen notices the prevalence at various periods of putrid

fevers, but gives little or no advice in relation to the diet proper in their treatment. Thomas objects to anything in the treatment of malignant and putrid fever, that would be calculated to sustain the system, unless there should be no congestion present.

Fordyce, in his Third Dissertation on what he calls regular continued fever, objects to the use of animal food in all varieties of fever. A very moderate use of farinaceous vegetables is all that seems to him necessary. He says: "If in health food of easy digestion is sufficient to maintain the powers of the body, it is certainly capable of maintaining them in disease, where from the facility of its digestion a greater proportion of it will be converted into chyle than of animal food of much more difficult digestion."

Such are the opinions which, anterior to the time of Armstrong, constituted the literature of dietetics in regard to fever. Hippocrates, Celsus, Riverius, Tissot, Fordyce, Cullen, and Thomas evidently inclined to the side of a spare diet in every variety of fever. Huxham and Pringle advocated the same plan in fever of much arterial excitement; but in the treatment of the epidemic putrid fevers of their day they recommended a nourishing diet from the commencement. So far as we know, they were among the first that succeeded in drawing the attention of the profession to the importance of this useful measure.

At the time that Dr. Armstrong wrote his work on typhus, abstractions from the vital current and everything calculated to waste the energies of the patient, were looked upon by a large portion of the profession as being prejudicial in fevers of a low grade of excitement. The doctrines of Pringle and Huxham were regarded as being correct, and as being confirmed by the results of practice. The ingenious author, however, to whom we have alluded, gave a very unfortunate impulse to the depleting plan of treating typhus and all its allies. Congestion in some form or other, according to him, was the cause of all the debility and prostration incident to the complaint, and as a consequence the obvious remedy,

with such pathological opinions, consisted in depletion general and local. The salutary suggestions of Huxham and Pringle were disregarded, and the disease was looked upon as being entirely amenable to antiphlogistic remedies.

Current as this doctrine has been in Europe and America, it is destined to take its place among the things that are obsolete. Observing men every where are becoming satisfied that it is wrong in theory, and wrong in practice. Since the cholera made its appearance, continued fever of every variety is most successfully treated by abstaining as much as possible from free sanguineous evacuations; and by adopting, in everything like typhus, the feeding plan of treatment. This is the testimony of those well qualified to judge, having charge of European and American hospitals; it is also the decision of the skilful part of the profession throughout the country. A question might here be started, whether or not febrile diseases have undergone any material change since the advent of the notorious and fatal pestilence to which we have alluded? As all know, such epidemics do work their impression upon, or modify in some way or other the diseases that succeed them. From the fact, nevertheless, that the correct doctrine relative to adynamic fever obtained, and was successfully tested by practice, anterior to the advent of the cholera, there is good reason for supposing that it is now what it always has been.

We have premised these remarks on the doctrines of the ancients for the purpose more particularly of adverting to the use of food in the treatment of what in our country is called *epidemic typhus fever*. Between the ancients and moderns there is no difference as it regards the propriety of abstinence, or a spare diet in continued fever connected with a high grade of arterial excitement, formerly called acute fever. The teachings of the Father of medicine in regard to such are as valuable as any that have ever been delivered; and are as current at the present time as they were in the days in which the Coan philosopher flourished. Our object is to call the attention of the profession to the sustaining, strengthening

plan of treating all febrile disorders in which, from the beginning, there appears to be atony of the principal functions of life.

It may not be out of place here to submit some of the considerations upon which this plan is founded.

In prescribing diet for any malady it is certainly not far wrong to pay attention to some of the features of its pathology, its duration, mode of termination, &c.

In the class of disorders of which we are about to speak, viz: the putrid fever of the ancients; the hospital, jail, or camp fever of Pringle; the nervous fever of Huxham; the typhus of Armstrong; the adynamic gastro-enteritis of Broussais; the typhoid of Louis and Chomel; the follicular enteritis of Andral; the dothinenteritis of Bretonneau, and the epidemic or winter typhus of American writers, there is, among other things, a well marked tendency in the system to debility, marasmus, and disorganization of the tissues. The debility is seen in the general prostration, the weakened action of the heart, the impaired condition of innervation, and in the diminished amount of the secretions. Rapid wasting of the tissues is a very conspicuous phenomenon from the commencement. As is well known, this morbid action extends to every organ and tissue of the system, unless the gelatinous and osseous be exempt, and these certainly are found less altered after an attack of typhus than other parts. By far the greatest change is witnessed in the muscular tissue, and in the adipose deposit. Here from the first onset the phenomena of emaciation are conspicuous, and often continue until the patient is reduced to the condition of a skeleton. More or less disorganization denoting the weakness of the vital force, is present in every case of anything like an aggravated character. Hemorrhage beneath the cuticle, (petechiæ) from the gums, alimentary canal, or the air passages is of common occurrence. Vitality in certain parts of the body at times becomes extinguished, and pieces of flesh mortify, drop out, and thus give rise to ulcers. Besides the alterations in the solids, the blood in disorders of this class is diminished in

quantity and depraved in quality. It contains, according to Andral, no spontaneously coagulable matter, is deficient in fibrin and globulin, and presents on inspection a dissolved, putrid appearance.

An enlightened system of dietetics, we think, should take into consideration the *duration* of the malady. In fevers that run their course in a short time the importance of this remark is not so obvious, as in those that are very protracted. As a general rule, the malady before us lasts from seven to twenty-eight days. Prevailing, however, in the form of an epidemic it has a certain cycle of changes through which it will run, and from which it cannot be moved, that in a majority of cases have something like a fixed duration. Very often this exceeds the time at which, in health, without food, starvation would occur. This event we know depends to some extent on the amount of fat in the body, the presence or absence of water, and the degree of motion, voluntary and involuntary, to which the system is subjected. In the complaint under consideration there is reason to believe that it would take place much earlier than in health. The functions of respiration and circulation are increased so much in activity, that there is more oxygen admitted into and transmitted through the system, than in health. This never passes out of the system unchanged; hence the secondary or destructive assimilation, the process of waste, is augmented, as is seen in the rapid emaciation, to furnish the materials with which the oxygen is found combined in the various excretions. Attended, therefore, with such circumstances, there is certainly propriety in carefully noticing the duration of the affection, in order that a kind of food may be provided sufficiently nourishing to sustain the patient until the disease has run its course.

Another view may be taken that seems, in our estimation, to make a timely and judicious administration of nourishing substances proper. We allude to the agency of food in obviating *complications.* All know that inflammations, compli-

cating disease, arise in very opposite conditions of the system. We find them occurring with as much facility in typhus, as in synochus; and it would perhaps be safe to remark, that the more a patient is debilitated the more danger he is in from complications of an inflammatory nature. If this position be correct, things having a tendency to keep the system from sinking into a state of prostration, and the avoidance of whatever is calculated to waste the strength of the patient, merit some attention as the means of averting what, oftener probably than the disease itself, causes a fatal issue.

From such views the sustaining plan of treatment seems most entitled to confidence; but some things, it must be remembered, look plausible in theory which in practice are found to be defective; we do not believe, however, that this is the case in the matter under consideration. Better success will be found to attend the course just mentioned than has attended any other to which the malady has, as yet, been submitted. We shall now proceed to a brief detail of the means proper for carrying this plan into execution.

In making a selection of food it should be recollected that the indications will be best fulfilled by articles digestible, containing a large proportion of nutritious matter, the elements of respiration, and, as far as practicable, those most adequate to exercise an antiseptic influence. As has previously been shown, animal matter contains the greatest proportion of nutritious principles, is least combined with adventitious substances, is as readily assimilated as other kinds of food, and has a composition identical with blood. Possessed of such qualities, it must undoubtedly take the first rank as an available agent in the process of nutrition. In the preparation of the food of course it should be reduced as nearly as possible to the fluid form. Tea, made from the fleshy parts of mutton, beef, or from fowls, answers a very good purpose. Analogous to these, and perhaps equally valuable, are eggs slightly cooked, and milk; the former composed principally of albumen, and the latter rich in casein—elements which have,

like the fibrin of flesh, a composition identical with blood.—Besides articles designed for nutrition proper, we want also those which are considered *elements of respiration.* The condition, as we have seen, of the respiratory function is such, that an abnormal proportion of oxygen is introduced into the system, which by combining with the tissues, there is very good reason to believe, is the principal cause of the marasmus. Something, therefore, containing carbon and hydrogen in proportions sufficient to unite with the oxygen of the inspired air, that it may be prevented from acting on the tissues, is what seems, if this view of the matter is correct, to be what is indicated. Vegetables, although not so nourishing as animal food, contains the materials to which we have alluded, in great abundance. Those to be preferred are the amylaceous, found in great abundance in wheaten flour, sago, tapioca, arrow-root, potatoes, &c. The "*cream of ptisan*" of Hippocrates, made from barley by boiling it to the consistence of cream, and straining it, is, we suppose, as valuable a preparation of vegetable food as any of modern origin. In having it prepared this author had his *thin*, *exactly* thin, and *extremely* thin, just as seemed to be required.

With respect to the articles best calculated to exercise a direct antiseptic effect, in order to oppose, as much as possible, the tendency to a diminished cohesion of the solids and fluids, we can say but little. Pringle as we have seen ascribes the decline, in his day, of putrid diseases, such as scurvy, leprosy, dysentery, plague, and pestilential fevers, to the introduction of sugar, beer, and various liquors into general use. It is known, nevertheless, that saccharine articles are very liable to produce flatulence, acidity, and other troublesome symptoms in the alimentary canal. In favor of the utility of beer and several kinds of wine, there is some testimony; but on considering the ambiguous character of any agent in fulfilling the indication before us, it may be concluded that as much can be done to resist the septic tendency by keeping the nutritive process in vigorous action as in any other way.

Stress was laid by the ancients on the *time* during the course of a fever at which the patient should have food. Hippocrates was averse to assigning any particular period as most proper, but insisted that it should be governed by circumstances. Subsequently to his day the subject was agitated by Asclepiades, who fixed upon the fourth day as the most proper period to commence the administration of food. This plan was adopted by Themison, and also by Galen. Among the moderns this question has ceased to be of any interest, as we have consulted none of them by which it is, to any extent, discussed. It is an old adage, nevertheless, that there "is a time for all things," and it may readily be presumed that there is a time at which it would be most proper to commence the administration of food. To the doctrine of Hippocrates we incline, that it should be governed by circumstances. If the patient is very lean it might be advisable to commence giving food at an earlier stage than where an opposite condition obtained. In cases of sudden invasion, characterized by much excitement, abstinence for a few days generally proves beneficial. On the contrary where the disease gradually steals possession of the system, attended with no violence in the symptoms, and from the character of previous cases of a like nature danger of great prostration is apprehended, it would no doubt be well to allow food from the commencement. During the prevalence of an epidemic we can generally learn enough of its pathological habitudes to ascertain the length of time that cases will be likely to run. If this should be great, no time should be lost in getting the patient at once upon a nourishing, digestible diet.

How often should the food be allowed? Frequently this question is put to the practitioner, in his visits to patients laboring under the complaint of which we have been speaking. In attempting to answer it, we might remark that there are two extremes to be avoided. One is to keep from continually teasing the patient with something to eat; the other is in not letting him fast too long. It should be recollected that there are certain physiological laws connected with digestion

which it is very important to observe during health. We refer to the necessity of preserving certain intervals between meals, in order to give the stomach time to digest its contents. If, therefore, we desire to save this organ the greatest possible amount of labor, a desideratum in the disease before us, the laws regulating healthy digestion should be carefully regarded. Cramming into the organ every fifteen minutes or half hour food that is even digestible and proper as to quantity and quality, never fails to embarrass the action of a healthy stomach, and of course cannot fail to do the same when the organ is in a state of disease. The other extreme is perhaps equally prejudicial. Disorders arise in the stomach of a healthy person by fasting too long; and other things being equal, there is reason to believe that the stomach after a long fast is not so well qualified to perform its office, as it is after the usual time between meals has elapsed. In addition to this, patients much prostrated need the invigorating influence of diet, in conjunction with other things, to keep them from sinking. From such considerations it is obvious, that, in trying to obtain the greatest possible amount of good from diet, it should be administered, not every few minutes, nor once in twenty-four hours; but after a proper length of time has elapsed to find the stomach in a condition to perform its office. The times at which the patient was accustomed to eat during health, we think, might be selected as being not far from correct. Taken oftener than this, unless where some urgent circumstance makes it necessary, it may fail to do good. Finally, system in regard to this matter is indispensable to success. The vital force, it should not be forgotten, is impaired; and as there is but a small portion of it, in the disease before us, available in the digestive process, it becomes necessary to economise this in many cases with the greatest possible care, as the only means left us of resisting the tendency to fatal prostration.

February, 1846.

ART. II.—*Thoughts on Fever.* By JAMES C. HARRIS, M.D., of Wetumpka, Alabama.

The following remarks on the character of the seasons and prevailing fevers of the past year are submitted under the conviction, that it is the duty of every physician to do something to elevate the character and increase the usefulness of his profession; and although they may contain but little, if anything, calculated to effect either object, still as a history of the past they may by comparison throw some light upon the coming events of the future. In entering upon the subject of fever I have a deep sense of the difficulty of my task. Its cause, the morbid phenomena attending it, the modus operandi of the poison producing it, and of the remedies by which it is treated, all are still involved in obscurity. Whether, in adding another to the many hypotheses which fever has called forth, I have added anything of value to the stock of medical doctrine, is left for others to decide.

Medicine of late, under the influence of the lights furnished by organic chemistry, together with those derived from the study of pathological anatomy, has been gradually advancing, and must continue to advance, aided by such powerful auxiliaries, until many of the present errors and abuses are reformed, and a more rational philosophy, and a better practice established upon their ruins. Should I fail in my desire of being useful in every other particular except only that of calling the attention, and fixing the thoughts of my bretheren upon the importance of the subjects involved in this essay, I shall consider myself amply repaid for the labor it has cost in its preparation.

That some of the doctrines advanced are not altogether without novelty, and will therefore by many be considered visionary and false, I entertain no doubt; neither have I the vanity to believe that they are placed by my arguments upon as unfailing a foundation as might be desirable, or as their importance demands; nevertheless I am as thoroughly impressed

with their correctness as though they had received the finishing touch of a master hand. I shall therefore proceed, without further preface, to the consideration of atmospheric air—that immense mass of permanently elastic fluid, which surrounds our globe, and in which we are continually immersed; and which we are informed by chemistry consists essentially of oxygen and nitrogen in the proportion of 21 of the former, to 79 of the latter, with a small trace of carbonic acid, and an atmosphere of watery vapor. Chemistry farther teaches us that these proportions, at the top of our highest mountains and in the deepest vallies, at the pole, and under the equator, —in every situation and latitude, and amid all contending forces are unalterably maintained, an accumulation of one never taking place at any given point to the diminution of the other. True, the quantity of oxygen inspired differs with the temperature and density of the atmosphere, but its combining equivalent is always the same. Hence it is obvious that, in an equal number of respirations, we consume more oxygen at the level of the sea than on a mountain, in winter than in summer, at the north pole than under the equator; and that under all these varied circumstances we find it answering most perfectly the ends for which it was designed, and containing within itself one of the chief elements of organic life.

But whilst we cannot fail to be forcibly struck with the perfect power possessed by this great link in the chain of creation of maintaining its purity, still we must not forget that, owing to the great extent of vegetable and animal decomopsition perpetually in progress, on the surface of the earth, the atmosphere is necessarily adulterated by other gases known to be injurious to health and destructive of life. The conclusion from the researches which have been best conducted, I believe, is that the exhalations furnished from vegetable matter are the principal, if not the sole cause of our autumnal fevers. We are told, indeed, that the experiments of Broschi in the most pestilential regions of the Campagna di Roma, and those of Moschati on the air of some insalubrious

rice fields in Tuscany, as well as those of Rigand de l'Isle in the marshes of Languedoc, all made with the view of detecting this poison, resulted in nothing more than the discovery of a few flocculi possessing the properties of animal matter. The scientific and laborious experiments instituted with the same view by Boussingault were attended with no better success. Still experience has established the existence of a subtle poison by its deleterious effects, and observation has shown that in its action upon the human system it bears a greater resemblance to carbonic acid than to anything else. Other gases, however, the result of other decompositions, are also found suspended in the atmosphere ready to do the work of destruction, but not in so great abundance, or of so deleterious a character. Some have also contended for the influence of barometrical and electrical states of the air; but how far they are concerned in the development of autumnal fever, I shall not at present stop to inquire.

To be convinced of the existence of a gaseous poison productive of fever, we have only to call to our aid the fact, that where ever we find a large amount of vegetable matter in connection with heat and moisture, there we meet with febrile diseases. To this effect we have the concurrent testimony of the profession everywhere. It is found to be true not less of the Ganges than of the Nile, of the Mississippi valley than of the Pontine marshes. A fervid sun and a fermenting mass of vegetable substances, are unfailing sources of bilious disorder. These positions may be considered unquestionable. The inquiry which then comes up is, how does this deleterious agent operate upon the living system?

That it acts mainly upon the blood in the lungs, through the medium of respiration, is rendered probable by the fact, that in all malarious districts and diseases, the blood appears to be imperfectly oxygenized, never exhibiting that high arterial color known to exist in good health. This black blood is known not to be the natural stimulus of the heart and arteries, upon the healthy performance of whose functions depends the health of the whole economy. Weakened action

of the heart, and depressed and perverted nervous action, follow as a necessary consequence, first perceptible on the pulse, and the nerves of the cerebro-spinal axis, as is manifest from the dulness, headache, chilliness, &c.

Now as it is a well known and invariable law both of the nervous and muscular systems, that they must act and repose by turns; between these systems there is, moreover, so intimate a connection that during the different stages of febrile commotion all parts of the system participate more or less in the general disturbance. Congestion of the abdominal, thoracic, and cerebral viscera are first created. These being repeated, to be again followed by more violent reaction, local inflammation is at length set up in some one or more of the different organs. These now become a new source of irritation, which reacting upon existing derangements, continues to perpetuate the circle of morbid phenomena. But it must be borne in mind that it is only when the atmosphere is loaded with malaria, and when this poison is aided by aerial vicissitudes, and also by some imprudence on the part of the patient, that the morbid alterations to which the blood is subjected are adequate to the production of the varied phenomena of fever.

To recapitulate briefly: the positions assumed are—1st. That the remote cause of fever consists in an additional element in the air; and that it resembles more nearly carbonic acid in its effects upon the system, than any other known element. 2dly. That this poison in the atmosphere through the medium of respiration, the skin, and the stomach, produces an alteration in the blood, upon which deranged nervous action ensues, with local determinations and inflammations. All forms of malarious fever in their first stage, there is good reason to believe, are of a *general* character, and only become local from repeated reactions upon the organization.

Taking, then, as established the foregoing positions, I come next to the consideration of what I consider a more difficult part of the performance; to wit: the modus operandi of some

of the leading articles usually employed in the cure of disease, and more particularly in the treatment of fever. This is a vexed question, respecting which all shades of opinion have been entertained, from that which refers the action of all medicinal agents to their admission into the blood, to that which denies to any foreign substance the power to reach the circulation in its formal state. This latter opinion, if it has not found as large a body of friends as the other, has secured the favor of some very able advocates, and has been defended with great eloquence and ingenuity. But it rests upon very insufficient evidence, and the progress of science renders its basis more insecure every day. It cannot be considered questionable, that a great number of medicines enter the bloodvessels, and find their way to every part of the body. It is through this avenue that many of our remedies reach the seat of morbid action. Quinine, for instance, when swallowed and mixed with the contents of the stomach, passes directly into the upper intestines, where it is taken up by the lacteal and absorbent vessels, and delivered under the influence of the vital forces, essentially quinine, into the circulation. Upon this subject M. Piorry remarks, that in twenty or twenty-five minutes after a person has taken sulphate of quinine the urine tastes strongly bitter, and that he gave a quantity of urine of this kind to Vallée to analyze, who obtained from it sulphate of quinine in crystals. Landerer, an apothecary of Athens, obtained a similar result from the urine of a patient affected with intermittent fever, who had taken in some paroxysms 40 grains and even a drachm of the muriate of quinine. Pereira, (Mat. Med. vol. 2, p. 456,) also proposes, upon the authority of some other writer, the cure of intermittent fever in the child by its administration to the mother during the months of lactation. From all of these facts it is as evident that quinine is absorbed and carried into the circulation as that it is swallowed. Of this there cannot be a doubt. How then does it act after having become mingled with the circulating fluids? The following explanation is submitted: The quinine having come in contact with the

malarious poison in the round of the circulation, neutralizes and destroys it; thereby the blood is improved, receives oxygen more readily, becomes more perfectly arterialized, imparts, consequently, more force to the nervous centres, and increased energy to all the vital functions. That such is the case the recorded experience of a large majority of the profession goes strongly to prove. Hence the fact that in those depressed states of the system which occur in congestive chill, quinine may be given with safety in doses which in another condition of the system would give rise to distressing effects. In the morbid state attendant upon the chill, the principal force of the medicine is expended upon the malarious poison in the blood, neutralizing and correcting it, and thereby elevating the vital energies; but in an opposite state it acts upon the blood entirely, giving to it an additional power to absorb oxygen, and thereby adding fuel to an already consuming fire.

It is also probable that an additional property is communicated to the venous blood by the quinine before it enters the lungs, by virtue of which it acquires the power to elevate our temperature, and increase the activity of the heart. That this is the fact, to some extent, all the attendant circumstances seem to indicate.

The following facts bear upon this point, and appear to me to sustain the view I entertain of the modus operandi of quinine. Professor Yandell, in his Prize Essay on Bilious Fever, remarks, that a patient of his, "a young man from Alabama, having had a severe attack of pleurisy in the winter, fell into chills and fever in the spring. He tried the quinine in doses of one and two grains, and with them succeeded in checking the disease; but it still returned. In one of the paroxysms, perhaps the second or third of a relapse, I gave him 16 grains at a single dose, in the height of the chill. Warmth was soon restored; sweating came on without any well marked febrile paroxysm; and the chills left him to return no more." From the operation of the remedy in this and analogous cases Professor Yandell concludes that quinine, in

small doses, stimulates, and in large ones calms and subdues nervous and arterial excitement.

Dr. Byrne in an analysis of a Report to the Surgeon General, on large doses of quinine (Western Journal of Med. and Surg. for 1845, p. 250.) says, that the terms tonic, stimulant, or sedative convey no just impression of the effects of quinine, its whole force being expended upon the nervous system, and its influence over the circulation being doubtful and uncertain. The effects perceived, he continues, are those of an anti-periodic, or in more comprehensive phrase, a direct antidote to the malarial poison. How this effect is produced, he adds, must remain unanswered.

Now the explanation we would give of the action of this remedy is, that it is always *stimulant*, and that its peculiar effect upon the skin, the circulation, and the nervous system depends upon their state at the time of its administration. Its uniform tendency is to destroy the fever-poison wherever found, in the lungs, the venous trunks, or the capillaries.

That the result of an overdose might be the reduction of a full, strong pulse, and increased nervous action, I do not pretend to deny; but that this is not by any means the invariable result of an ordinary dose in similar stages of the system, any one may satisfy himself by an experiment such as I witnessed last summer. I witnessed the administration of quinine in 10 grain doses at intervals of an hour until 40 grains were taken, in stages of open excitement, with furred tongue, hot skin, and full, strong pulse, with no other effect than an aggravation of all the symptoms, and the addition of *tinnitus aurium*, and pain in the head. The reason of all this is obvious; the blood being sufficiently arterialized, the quinine did nothing more than add to the general excitement and distress, by virtue of its power manifested in the way heretofore described.

In the stage of collapse, or where there appears on the part of the system a tendency to sink, I highly approve of the liberal administration of quinine; it may be used also

with safety and advantage, as all the world knows, on the decline of fever, or as soon as any softness of the pulse and moisture of the skin make their appearance. But that much harm has been done by its administration during stages of excitement, I am constrained to believe; and I trust the day is not far distant when a more rational view will be taken of the remedythan that which now leads to its employment in such opposite states of the system.

I will now offer a few remarks on the operation of *calomel*, and then dismiss this part of my subject. That this article produces its remedial effect chiefly by entering the circulation, is quite as certain as that quinine acts in that way, but here the analogy between the remedies almost entirely ceases. Calomel, owing to the peculiar and powerful influence it is known to exert over the liver and glandular system generally, is an article unique in its modus operandi. That it not only enters the circulation, but also may remain dormant in the system for several years, and then manifest some of its peculiar effects upon the glands of the throat and mouth, and upon the mucous membranes, in a very insidious and fatal manner, there is good reason for believing. The case of ulcerated tongue and mouth communicated by the writer in the April number of this Journal, (1842, page 319,) is one in point. But these truly interesting and singular effects occuring out of the usual course of its operation, once perhaps in ten thousand times, are to be ascribed rather to peculiarities of constitution, than to any inherent property in the remedy itself. That calomel also possesses the power to resist the influence of the vital forces, in a very eminent degree, is evident from the fact, that a gold watch worn next the skin, or gold rings upon the fingers during a mercurial saturation, become whitened with an amalgam of mercury. In its action in the removal of fever it seems to pervade the whole sanguiferous and glandular systems, imparting to the former certain powers that enable it to place the secreting apparatus of the latter in active operation. The circle of its action ap-

pears to be extended and powerful, no tissue of the system escaping its influence; and it is not asserting more than experience sanctions, when I say that a remedy with its stimulating and alterative properties, under judicious management, and on correct principles, is susceptible of almost universal application, and may fulfill almost any indication in the cure of disease.

When under the influence of this remedy the nausea and desire to evacuate the bowels by purging are to a considerable extent, I apprehend, brought about by certain specific and stimulating properties being added to the bile, and other secretions.

Without further preliminary remarks I will now proceed to the main object of this paper, which is to give some account of a fever with which Wetumpka was visited last autumn, and of the medical topography of the locality in which it prevailed.

The Coosa river, which separates East and West Wetumpka, after it enters the limits of the town, runs for the first half mile in nearly a south-west course, when it passes under the bridge, and then shifts its direction more to the south-east. Pursuing this course for about a mile more, and then turning west, it runs in a devious line until its name and waters are lost in those of the Tallapoosa.

In the original plan of the city, the streets were laid out North and South, East and West, crossing each other at right angles; but owing to the peculiar structure of the surface of the earth upon the eastern side this arrangement has been lost. Here Main street runs south from the end of the bridge, and Bridge street east, two hundred yards to the market house; forming an angle here upon its outer section with Gay street, then runs north-east and parallel with the river, to the north eastern extremity of the corporation.

At the north-eastern extremity of the city, and upon the eastern side of the river a range of hills sets in, at the distance of a quarter of a mile from the river, and continues

parallel with it, gradually approaching it, until it arrives at the market house, where the range suddenly changes its direction due south, and continues this course until the hills are lost in the high lands separating the waters of the Coosa from those of the Tallapoosa rivers.

At low tides the current of the river above the bridge is thrown almost entirely against the western bank, leaving exposed to the action of the sun a large amount of decaying vegetable matter. There are also interspersed among the rocks on the shoals many pools of stagnant water, in which a mass of organic matter is continually decaying. One in particular commencing not far above the bridge, and extending some hundred yards up the river, is a fruitful source of exhalation. A large ravine also extends from the water's edge in the rear of the buildings on Bridge street nearly up to the market house, and receives the filth from the greater portion of this part of the city. There are other sources of fever of a local character upon both sides of the river; but as they are similar to those already described, I pass them by without any further notice, referring for a fuller topography to an article by the writer *on Diarrhœa*, published in this Journal in September, 1845, on pages 191–'2.

Now if the wind during the months of August and September sets in, and continues to blow regularly from the north and north-west, for three or four days in succession, over these prolific sources of malaria, what else could be expected, but that all the inhabitants residing on Bridge, Main, Gay, and Company streets, and the sides and tops of the adjacent hills, should become liable in a peculiar manner to fevers? And in the assertion that they always do suffer, to a greater or less extent, I am borne out by the observations of all who have paid any attention to the matter.

The summer and autumn of the past year were seasons as remarkable for their heat and dryness in this section of country, as perhaps any that have been experienced in many years. The thermometer stood steadily throughout the greater portion of the month of July at 4 o'clock, P.M., above

90°. On the 24th it stood at 102°—the highest point to which it was ever known to rise in this city. The dryness was as excessive as the heat, destroying almost entirely the crops of the planter. In fact all animated creation seemed to droop under the influence of the parched and heated atmosphere. Still the city remained comparatively free from disease of all kinds until about the 20th of July. At this time a few scattering cases of fever began to make their appearance. They were at first mild, and, so far as they fell under my observation, of an intermittent and remittent type, most generally the latter, attended with furred tongue, sick stomach, pain in the head, loins, and extremities, restlessness and dry, hot skin. As the season advanced, the pain in the head, extending through from temple to temple, became more frequent, and at times was of so violent a character as to give rise to delirium.

In one of these cases there was a peculiar tremor of the tongue upon protrusion; the tongue was covered with a dark brown fur.

The bowels also became painful, and tender to the touch, and manifested in a few cases a strong tendency to diarrhœa, the discharges being watery.

The heat of the surface was more pungent and intense than I remember to have remarked it since the fall of 1834. The restlessness, in such cases, was extreme and distressing. The pulse varied according to the stage of the case, and the hour of the day and night, being generally lowest about midnight, gradually augmenting in frequency and force until after the middle of the afternoon of the next day. It then gradually commenced declining, but scarcely ever coming down to the healthy standard; on the contrary, it averaged, the most of the time, from 120 to 130 pulsations in the minute, and sometimes even rose above this.

From the above brief description it will appear that the general character of the epidemic was a bilious remitting fever. The remissions were at no time very strongly or clearly marked; the disease was attended with local determina-

tions and inflammations, most generally the brain or bowels being the suffering organs, and sometimes both.

In the treatment of the fever, in the early stages, the lancet, the cold and warm baths, and calomel and ipecac., in combination, were the means principally relied upon by myself for the reduction of excitement, and the preservation of the integrity of the various organs. In the more advanced stages, where the disease had been neglected, or the vital energies appeared overpowered or exhausted, calomel and quinine internally, with sinapisms and blisters to the extremities, and over the seat of the suffering organs, constituted the outline of my curative endeavors.

It was found at all times exceedingly difficult to conform the use of the quinine to the remissions, and on this account I often failed to derive any benefit whatever from its employment.

For the restlessness and watchfulness, and where there was a disposition in the bowels to serous passages, morphia alone, or in combination with calomel, was generally used, and found to answer the end desired. The greatest difficulty, however, experienced in the successful management of the disease, was to procure and keep up free, consistent bilious evacuations. This could only be done, in some cases, by the liberal administration of mercurial medicines; and to show the extent to which it sometimes became necessary to carry this practice, I will conclude this already too much extended paper, by extracting the following case from my note-book.

September 13, 1845. Called at midnight to see Mr. Lyon in consultation with Dr. A. N. Lightfoot, an intelligent and respectable practitioner of our city. The patient had been attacked on the first of the month with the usual symptoms of this fever. Upon my arrival Dr. L. informed me that he had bled the patient twice, blistered his wrists and epigastrium, and purged him liberally with calomel. The peculiarities in his case, were, an intermitting pulse, extreme gastric irritability, a strong disposition to watery discharges under the

use of cathartics. His other symptoms were great heat, but no tenderness at the epigastrium, tongue coated with a dark brown fur, and no appearance of ptyalism, although he had taken large doses of calomel.

Under a joint prescription, he continued to take from 40 to 60 grains of calomel daily, for five or six days, in combination with an occasional dose of morphia. Upon this course, bilious, consistent discharges were soon produced, and easily kept up; and Mr. L., without experiencing any bad effects at the time upon the glands of his mouth, or in any other way from the medicine, is now in the full enjoyment of his usually good health.

March, 1846.

ART. II.—*Stricture of the Urethra, with Retention of the Urine; Division of the Stricture; Puncture of the Bladder; Recovery.* By WILLIAM CALDWELL, M.D., of Louisville, Ky.

Mr. R. M. W.——, aged 24 years, of small stature, and bilious temperament, with black hair and large prominent grey eyes, had been generally healthy, until he contracted gonorrhœa in November, 1835, for which he was treated with emetics, Cooke's pills, balsam of copaiva, and nitre. The discharge from the urethra was several times checked, but as often returned again, until February, 1836, when he was seized with retention of urine. This was partially relieved by the use of fomentations, &c., but from that time he continued to have difficulty in micturition, accompanied with more or less gleet. In June following he was attacked with complete retention; his physician attempted to introduce the catheter, but failed; and he again found partial relief, after twelve hours, in the use of nauseants, venesection, diuretics, and fomentations.

From June, 1836, he had more or less difficulty in micturition, but no complete retention, and was under no medical treatment, until the fall of 1843, when he again contracted gonorrhœa and was treated with Chapman's mixture. At the end of six weeks he was dismissed as cured, but was still the subject of stricture accompanied by gleet.

On the 16th of June, 1844, I was called, for the first time, to see him, in company with Dr. Field. We found the bladder greatly distended from complete retention.

In presence of Dr. Field, I attempted to introduce a catheter, but failed; some resistance was met with just within the scrotum, but it yielded readily, and about an inch further on the instrument encountered a resistance so firm and unyielding that I became satisfied that it rested upon an organized stricture. Finding it impossible to introduce an instrument, we resorted to copious venesection, and other means, to produce relaxation, which in a short time afforded him partial relief. Again on the 24th of July, I was called to see him; found him laboring under complete retention, and relieved him as before. I then advised an operation as the only means of effecting a permanent cure, but he objected to it. He subsequently placed himself under several physicians at different times for treatment; and I saw him no more professionally until about the first of December following, when I was called to see him in consultation with Dr. Squires. He was again laboring under complete retention. I made another ineffectual effort to introduce the catheter; and he was partially relieved as previously. He had now been constantly under the influence of constitutional treatment with strict diet since July, which had only served to prevent complete retention, having made no appreciable progress towards removing the stricture. His constitutional treatment with restricted diet was continued, for the purpose of keeping off if possible another attack of retention, until he could place himself under surgical treatment.

On the 22d of April, 1845, I was called to see him, and found him suffering excruciating pain with distended bladder.

I again attempted to introduce the catheter but failed. Every effort made by myself and others, when called upon to examine his case, to pass instruments of different kinds into the bladder, having failed, any hope of succeeding seemed to be absurd.

Deeming an operation the only resource left to save the patient's life, and afford him permanent relief, I sent for my partner, Dr. John D. Winston, of Columbia, Ky., at which place I then resided. Dr. W. attempted to introduce an instrument, but without success; and agreed with me that it was impracticable, and that the operation should be performed.

We accordingly explained to the patient and his friends the nature and danger of the operation; that it was probable the incision would have to be continued to the bladder, and the wall of the bladder punctured, forming a new canal and neck to that viscus; and that the operation was condemned by high authority, &c. But he called upon me to operate; stating that for nine years he had not voided his urine without pain; that at best it merely dribbled away between his feet; and that he was evidently growing worse, so much so that his life had become a burthen to him.

With the concurrence and assistance of Dr. Winston, I determined to proceed to the operation the next morning.

April 23d. We proceeded, in the presence of Drs. Field and Hardin, to the operation. Our patient was placed on a common dining table on his back, confined, as in the operation for stone, with his legs flexed, and his heels resting upon the palms of his hands; a silver catheter was passed into the urethra until it rested upon the stricture, and was then given to the hands of an assistant. Standing between the legs of the patient, at the foot of the table, I cut down upon the catheter behind the scrotum; a grooved director was then passed into the urethra and upon it the incision was continued through the stricture; the walls of the urethra at this point were very dense and firm, and about an eighth of an inch thick. With some difficulty, the catheter was carried for-

wards about three-fourths of an inch, when it was again arrested; the director was then resorted to, and the canal was fairly laid open through the second stricture. The parietes of the canal at this point were about a quarter of an inch thick, and of a semi-cartilaginous appearance. Thus far the operation progressed favorably, no obstacle having presented itself which was not readily overcome. We had now a cut externally of two inches, and the urethra divided to the extent of an inch and three-quarters from the bulb backwards towards the bladder. But in attempting to trace the canal further we found the end of the director resting on the ulcerated parts, which seemed to have no communication with the membranous portion of the canal. Having failed in every effort with the director, a small probe, and the catheter, to trace the canal further, we directed the patient to pass his urine, hoping to find the canal by tracing the stream of urine; but in this we failed also, for it seemed to force its way into the wound through the diseased and mutilated parts in every direction, giving no clue to the natural channel, or any communication with the bladder whatever. Our patient being greatly exhausted, it was determined to defer any further search until he should have some rest; accordingly we placed him in bed where he spent the remainder of the day and night in tolerable comfort.

24th. During the day, when the patient's strength would permit, every effort was made to trace the canal, until late in the evening, when retention came on, and we gave over the search. It was then agreed that we should continue the operation, but it was thought best to defer it until morning, because it was then late, the bladder was not as full as we wished it, and the patient was very much fatigued; at the same time there was no indication calling for immediate interference. He spent a bad night.

25th. The mode and character of operation being agreed upon, we proceeded, in the presence of Drs. Fields, White, and Walker, to continue the incision into the bladder, punc-

turing the wall of this organ as near the neck as possible. The patient being placed on the table and confined as previously, the fore finger of the left hand was passed into the rectum and slightly depressed. A sharp-pointed bistoury was then seized between the thumb and forefinger of the right hand and carried into the wound with the point resting on the forefinger. Thus guarded, as the way was felt by the finger, the point of the instrument was carried forward, and with lateral motions given it by the thumb, the parts were divided to the bladder, which was punctured with a free incision. As the urine gushed out a female catheter was inserted from the external wound into the bladder, and the end stopped; a male catheter was then inserted into the urethra, and, the other being withdrawn, was conveyed through the newly formed canal to the cavity of the bladder. It was then confined in its place, the external wound dressed, and the patient returned to bed. During the afternoon, doing well; 7 o'clock, P.M., had a slight chill—lasting 10 minutes, followed by fever; pulse 130; distressing thirst; gave solution of cream of tartar. Nine o'clock at night—sweating; pulse reduced; feels comfortable. Twelve o'clock—severe chill; great distress, with difficulty of breathing; ordered calomel and morphine; mustard sinapisms to the spine, with warm applications to the extremities; chill lasted half an hour, followed by fever, thirst, &c.; pulse fleeting. Two o'clock—commenced sweating; pulse very quick.

26th. *Morning*—Improved in general symptoms; quiet, with moist skin. ℞. Calomel and morphine every five hours, and elm mucilage as a drink. Ten o'clock—pulse 127; skin moist; urine passes freely through the catheter, and also through the wound. Twelve o'clock—slight chill. ℞. morphine ¼gr. Chill followed by slight fever and sweating; had a restless night.

27th. Some improvement; pulse 117; skin moist; urine passes freely as before; some appetite; suspend medicines. Ordered milk and rice diet; mucilaginous drinks.

28th. Still improving; no action from the bowels since the 25th; gave enema. Five o'clock, P.M., pulse 95; still improving, but no action from the bowels; repeat enema; spent a restless night.

29th. Pulse and general condition about the same. Two o'clock, P.M., catheter clogged up; withdrew it and inserted a female catheter through the incision in the perineum; having prepared a male catheter it was passed into the urethra, and, after withdrawal of the other, was carried on to the bladder without difficulty; the external wound was closed and dressed with adhesive strips. Spent a comfortable night.

30th. Urine passes freely through the catheter with some bloody matter; pulse 95. Ordered thin squirrel soup as diet.

May 1st. Skin pleasant; no thirst; pulse 88; appetite good; tongue clean and healthy. Ordered enema; chicken soup as diet. Five o'clock, P.M.—enema brought away healthy discharge from the bowels; pulse 85; doing well.

2d. Still improving; pulse 80; tongue clean and moist; appetite good; rested well since yesterday. Ordered milk and farinaceous diet.

From this time there was gradual and steady improvement. The catheter was examined daily, but the parts seemed to be healing so kindly and were so free from irritation, that it was thought best not to remove it until the 3d of June, when it was removed and cleansed, and re-inserted without difficulty, the patient exhibiting very little tenderness. On the 6th, the catheter was removed at 10 o'clock, A.M., and was not replaced until 5 o'clock, P.M. The urine passed freely; there was no pain or tenderness; the parts felt natural.

On the 8th, the instrument was removed and not replaced until the next day. The urine passed in a full, free stream; parts feeling perfectly sound, and the patient's health and strength daily improving.

From this time, the period for leaving out the catheter was gradually lengthened. I saw the patient occasionally until he learned to remove and introduce the instrument himself

without difficulty. He was then dismissed as cured, with the direction to introduce the catheter two or three times a week for some months, by way of precaution.

I saw him in January, 1846; he was perfectly well, had entire control over the urinary organs, and voided urine in a full, free stream, with no sensation but that experienced by a man in perfect health.

April, 1846.

ART. IV.—*A Case of Pneumonia, succeeded by Purpura Hemorrhagica and Abscess.* By W. H. STILWELL, M. D., of Madison county, Tennessee.

J. B———, a laborer, aged 17 years, had an attack of pneumonia four years ago; was seized 9th January last with chill followed by fever, pain in head, cough, with free expectoration of bloody mucus. Pain in left side of the chest about the nipple constant and much aggravated by coughing. I was called on the 10th, and found the pulse 90, small and compressible; surface moderately warm and pale, except the 'circumscribed blush' on the cheeks; tongue moist and slightly coated with whitish yellow fur, edges red; thirst considerable; no nausea; bowels costive. Every act of coughing brought up a mouthful of thin, viscid, bloody mucus. Respiration 40, and anxious. I prescribed the following: Antim. tart. grs. 4, aquæ ℥vi, a tablespoonful to be taken every hour until it produced vomiting. Ten grains of blue mass were also exhibited in divided doses at the same time. Scarification and cups were applied over the region of the inflamed lung.

11th. Medicine vomited the patient several times, and produced hypercatharsis; evacuations bilious; pain in head relieved, that in the chest mitigated a little. Temperature the same; cough less frequent, but painful; sputa as before.

Ordered a large blister to left side of chest; calomel 1 grain, opium ½grain, every three hours. Continue the antimonial solution in nauseating doses.

12th. Medicines had been regularly taken; tolerance of antimony established. Blister drew well, and pain much relieved, but migrating into sternal region; cough and sputa the same.

It would be unnecessarily tedious to detail the daily progress of this case throughout. The tart. antim., calomel, and occasionally opium, with repeated blistering, were persevered in with but slight alteration of the patient's condition until about the 9th day, when great apparent amendment began to be visible. There was then gentle diaphoresis; pulse 85, and weak; pain slight; cough occasional; sputa yellow, opaque, without blood; tongue cleaning; no thirst, and appetite returning. In short, on the 23d my visits were discontinued, under the belief that he was convalescent and out of danger.

On the 25th I was again sent for, and found him with haggard countenance; eyes dull; skin natural, moist; pulse scarcely perceptible, and about 110; no pectoral pain; cough almost gone; but he was bleeding slowly from the nose; had a constant desire to urinate, with excrutiating pain in the region of the bladder, and passed from a gill to half a pint of almost pure blood at each evacuation of that organ. His breast and extremities were punctuated with dark red specks, (petechiæ) the size of a pin's head, without elevation at first; on detachment of the cutis, an escape of blood took place sufficient to stain the sheets in spots. Blood was also oozing from the surface of the last blister. The bowels were in a natural condition; the patient was without appetite. Prescribed alum and opium at the moment, and afterwards pills of acetate of lead 1gr., opium ½gr.; one to be taken every two hours.

26th. Patient in the same state. Directed port wine to be given freely as a drink and in his food. In addition to the

above medicines, gave 12 drops tinct. mur. iron every two hours; lead water to be applied to the hypogastrium.

27th. Patient better; continued the same medicines, and in a few days the hemorrhage ceased entirely; his appetite returned; his pulse became fuller, but continued too frequent; hectic flushes and some nocturnal sweating were present; bowels confined four or five days from the opium. Pain was again felt in the left side of the chest two inches above the nipple, attended by dullness on percussion, a total absence of respiratory murmur, and pectoriloquy. Cough became in a short time paroxysmal and convulsive. This condition of things lasted until the morning of the 15th of February, when, while struggling with the most violent fit of coughing he had ever experienced, the abscess burst, and he was nearly suffocated by the discharge from the lungs of half a chamberpotful of a yellowish purulent fluid, of a pungent, penetrating odor. He continued to expectorate for several weeks; the matter becoming more consistent and daily diminishing in quantity, while his general condition improved rapidly. He is now free from all complaint; no medicine whatever was taken after the discharge of the abscess.

Pneumonia is more or less prevalent in all the western counties of this State, during the latter autumnal and the winter months. Indeed, a gradual transition from autumnal bilious remittent fever, to pneumonia, is often observed; the first examples of the latter partaking always partially of the bilious form. Later, the disease assumes more of the inflammatory character; although it seems to be generally admitted that there exists a material difference between the disease as it occurs here and in more northern latitudes. Here there is perhaps more hepatic derangement, and less tolerance of a vigorous antiphlogistic treatment than in colder regions. True pleurisies are rarely seen. It is observed that men are most liable to attacks of pneumonia, in consequence perhaps of their greater exposure, the largest proportion of cases occurring among the laboring classes. The period of life

most liable to attacks of the disease is from fifteen to thirty years.

During the past winter there were about the usual number of pneumonic cases, and as a general remark they presented the bilious appearances.

The above case, and a few others which occurred in the practice of a neighboring physician, seem to constitute exceptions. I did not see the others alluded to; they all occurred in one family, and were described as bearing a close resemblance to the one detailed above; the chief difference consisting in an earlier development and greater intensity of the typhoid symptoms, and also in their proving fatal in about half the instances.

Such cases as that of J. B. are not of frequent occurrence, if I may judge from my own observation. One strikingly analogous to it, however, in its origin, progress, and termination, is reported by Dr. L. P. Yandell in the Transylvania Journal of Medicine, (vol. I, page 237), the following extracts from which will be read, I think, with interest:

"Miss G., daughter of a respectable farmer in the vicinity of Murfreesborough, Tennessee, aged about eighteen years, of a stout frame, and robust habit, was attacked on the 15th day of January, 1827, with pleurisy, blended with peripneumonic symptoms. The attack being violent, an energetic practice, consisting of venesection, cathartics, and nauseating doses of antimony, was resorted to. It was found necessary to repeat the bleeding more than once, and calomel, in ten grain doses, was given for several nights in succession, followed by saline purgatives next day. Blisters and diaphoretics succeeded in due time, and the disease appeared to be yielding to the treatment.

"But on the fifth day of her indisposition, the patient experienced an attack of diarrhœa, by which she was alarmingly prostrated. It yielded, however, in a few days, to opium and acetate of lead, conjoind with the compound powder of

ipecacuan; and by the use of the carbonate of ammonia she was again speedily convalescent.

"On the 30th we heard from her, at which time she was considered cured. We saw her, incidentally, on the 31st; she was engaged in light manual labor, but she still experienced some pain in the breast, slight cough, and dyspnœa. Believing that some vestige of the disease, in the shape of sub-acute inflammation still remained, we ordered her a grain of calomel, with a fourth of a grain of opium every night on going to bed, with a view of producing an alterative effect.

"We left our patient hoping to hear no more of the case. But the worst was yet to follow. On the 5th of February she was attacked with hemorrhage from the nose and gums, which resisting all the domestic remedies of the family, caused us to be called on the night of the 11th. When we arrived at her bed-side we found her prostrated to the lowest point; her countenance exsanguineous and sunken; her voice weak and tremulous; pulse extremely frequent and scarcely perceptible; the hemorrhage from her nose and gums still in progress. In the course of the day, upon a slight muscular effort, she had once experienced syncope.

"Upon examination we found the extremities covered with petechiæ, and were informed that they existed on other parts of the body. They were to be seen lining the tongue, gums and fauces. Blood came, occasionally, from the ears, and from the nostrils it fell in drops without intermission. It was ejected from the mouth with the saliva.

"The whole class of vegetable and mineral styptics had been gone over without effect—the bleeding continuing, and the patient in the most imminent peril.

"Without loss of time we commenced with bark and the sulphuric acid, in doses as large as her stomach would bear. A gargle made of borax, and cold cloths to the back of her neck, were conjoined, with temporary advantage.

"In a few days, under this course, the hemorrhage ceased; the vital powers rallied; the petechial spots disappeared; and

considering her extreme debility, she enjoyed a rapid convalescence, and is now in the enjoyment of good health."

In this case no abscess formed in the lungs; but in every other particular it bears a strong resemblance to the one the history of which I have given. I have been disposed to ask, in reviewing the case of J. B., whether the disease with which he suffered differs from the "*pneumonia typhodes*" of the eastern and middle States; and whether it was not, from the beginning, a typhoid disease? I have also sometimes asked myself, whether the free use of the tartarized antimony had any agency in inducing the hemorrhage, and other secondary symptoms? I find that Dr. Yandell, too, was inclined to look to the treatment for the origin of the subsequent evils in his case. "Cathartics," he says, "were possibly administered too freely in the acute stage of the complaint. The diarrhœa, with the consequent extreme prostration, was probably produced by this cause." He supposes it "possible that the calomel was the cause of the purpura," although he insists, on good grounds, that the mercurial was indicated in the inflamed condition of the lungs. I have supposed that the more liberal use of calomel, in my case, might have prevented the formation of the abscess. Tonics, in Dr. Y.'s case were beneficial. Would they, in mine, have saved the patient from the typhoid symptoms, if they had been seasonably interposed? The whole subject of purpura, its cause, pathology, and best treatment, is a most obscure one, and the discrepancy of opinion concerning it as great as it was half a century ago.

March 10th, 1846.

REVIEWS.

ART. V.—*Homœopathy, Allopathy, and 'Young Physic.'* By JOHN FORBES, M.D., F.R.S., &c., &c. Philadelphia: Lindsay & Blakiston. 1846. 16mo. pp. 121.

About the time that Galvani made the signal observation which has perpetuated his name in connexion with a new and wonderful science, Hahnemann was engaged in translating Cullen's Materia Medica into German; and while about that task the fundamental doctrine of Homœopathy entered his imagination. Up to that period, the forty-fifth year of his life, he seems to have been reconciled to the prevalent system of the times; but the attempt of the Edinburgh professor to explain the action of bark in curing intermittent fevers appearing to him unsatisfactory, he resolved to experiment with it upon his own person. He was in the most perfect health when he entered upon these experiments; but soon he felt a change; he had scarcely taken a full dose of the medicine before he was seized with all the symptoms of ague. And "forthwith," says his historian, "arose in his mind a conception of the great truth which was destined to constitute the basis of the new art of medicine." It was a natural question, that which proposed itself;—"May not the power of cinchona to cure ague, depend on its power to excite in the healthy body a similar disease?" With the view of answering it, he made numerous trials with various medicines upon himself and others, and his report was, that they never failed to "excite in the healthy body the same symptoms which they

were capable of removing where these occurred naturally in the diseased body." His next step was to look into the records of medicine, as to the effects accidentally produced by poisons and other strong drugs. Here he thought he found everything confirmatory of his peculiar views derived from experiment, and the conclusion was no longer to be resisted —"that every disease is best cured by that medicine which is capable of producing in the healthy body similar symptoms, or a like disease." Hence the doctrine of *homœopthy*—homion pathos—stated briefly, "*similia similibus curantur—Like are cured by like*, i. e., *homœopathically.*"

This doctrine, we have seen, is as old as galvanism, and comes down to us from a former century. It is no upstart doctrine, that, having amused the minds of men for a few brief years, has sunk down into "a dark and long outliving night." It has survived its author, and seen a generation of men pass away from the earth; and still it exhibits no indications of decay. It has spread over the civilized world, and taken the deepest root where men esteem themselves most advanced in civilization. Everywhere instances are known of physicians who have quit the regular walks of the profession to enlist as its disciples, and their apostacy has been rewarded by a full share of public confidence. Hospitals have been erected in which to make fair and ample trial of its efficiency; kings and princes in other lands have been its patrons, and the first of American poets is a convert to its truth. Finally: it has found advocates among men of real science; physicians of learning and experience have been won over to it; and it is now entertained and taught by a professor in one of the oldest and most noted of British Universities. Our allusion is to an institution no less renowned than the University of Edinburgh, the Professor of Medicine and General Pathology in which, W. Henderson, M.D., has issued an octavo volume in defence of the system. Great as were the previous triumphs of homœopathy, this is the one which will probably be regarded by the friends of that doc-

trine as the most substantial, and will excite medical men to the most profound reflection.

Such a doctrine, it will be conceded, is worthy of examination—the secret, at least, of its perpetuity and success; and we are glad that it has been made, in a spirit of apparent candor and fairness, and certainly with singular ability, by Dr. Forbes, in the little volume which stands at the head of this article. Homœopathy has been occasionally adverted to, but never formally noticed in the pages of this Journal, and we therefore propose now to lay before our readers some of the conclusions respecting it, at which one of the editors of the Cyclopædia of Practical Medicine, and one of the most eminent of English physicians, has arrived, together with some of our own thoughts on the subject. We will premise that Dr. Forbes has no faith in homœpathy; still his aim, in the work before us, which appeared first in the Review of which he is editor, is not to expose, but to *examine* its pretensions.

Homœopathy stands apart from all other systems of medicine equally in doctrine and practice. All proceed alike upon experience; but while *Allopathy*, in all its branches, is founded upon the action of medicines on the sick, homœopathy has been deduced from the effects of these agents on people in health. This is one feature of homœopathy, but the most distinguishing, and by far the most marvellous one, is the infinitely small doses in which its remedies are administered. Originally, it is said, this was not a part of Hahnemann's system; but was engrafted upon it after its author found that medicines, in appreciable doses, were too powerful in their action upon the system when its susceptibilities were exalted by disease. It has been hinted that his reason for adopting it was one not so creditable to his system—that learning by frequent trials that his homœopathic remedies did injury to his patients, he found it necessary to reduce the dose until they ceased to be felt, and so became harmless. Certainly, as observed by Dr. Forbes, "there seems to be a contradiction in the facts, as well as the reasoning of Hahne-

mann, in regard to this matter." It is from the augmented sensitiveness of the affected part induced by disease, he says, that the remedy operates in infinitesimal doses. If this is the case, how are we to account for the multitude of symptoms —his "medicinal diseases"—recorded in his works as the results of medicines acting on the healthy body? In health this sensitiveness is not present, and yet, if we are to credit his observations on himself and others who experimented with his remedies, it was not uncommon to have a score or two of medicinal diseases flowing from one of his doses. These doses have been more ridiculed than any other part of his system, and still we verily believe that it is impossible to rise to the height of their absurdity. We quote from Dr. Forbes on this subject:

"So minute are the doses prescribed by the Hahnemannic school, that they are scarcely conceivable by the human mind. They defy all the powers of chemistry and physics to detect in them any trace of the remedial substances which they profess to contain, and they almost confound arithmetic in reckoning their amount. We are not ashamed to confess, that our own powers are inadequate to put down in figures an ordinary homœopathic dose, and we suspect that many of the homœopathists themselves would find themselves in the same predicament on trial. The following are the different *attenuations* or doses used:

First	=one hundredth of a drop or grain.	
Second	=one ten-thousandth	do.
Third	=one millionth	do.
Sixth	=one billionth	do.
Ninth	=one trillionth	do.
Twelfth	=one quadrillionth	do.
Fifteenth	=one quintillionth	do.
Eighteenth	=one sextillionth	do.
Twenty-first	=one septillionth	do.
Twenty-fourth	=one octillionth	do.
Twenty-seventh	=one nonillionth	do.
Thirtieth	=one decillionth	do.

"The primary dilutions or attenuations are used comparatively rarely; the higher ones, as the sixth, twelfth, twenty-

first, and thirtieth, very commonly. It may be worth a moment's trouble to try how far we really understand or comprehend these numbers. Looking at the first of these we have no difficulty. The *hundredth* (100th) part of a grain, is intelligible enough; the *ten-thousandth* (10,000th) is comprehensible, but begins to waver before the mental view; while the *millionth* (1,000,000th) part of a grain, puts our powers of comprehension on the rack, and leaves us in a chaos of undefined entities or non-entities, we know not which. We fancy that we grasp the reality, and then it instantly vanishes as a phantom, even beyond the sphere of imagination itself. Having got so far, the additional subdivisions, or attenuations, scarcely add to our difficulties. The mind, in any such case, is occupied by a word more than a thing—and whether the word be a millionth, billionth, or a decillionth, the power of comprehension seems the same.—And yet the *actual difference* between these quantities is immense,—so immense as to be almost as inconceivable as the actual things themselves. This will be more intelligible, we think, by setting it down in words thus:—

One thousand thousands,	is - -	A Million.
One million millions -	- - -	A Billion.
One million billions -	- - -	A Trillion.
One million trillions -	- - -	A Quadrillion.
And so on to -	- - - -	A Decillion.

"Now, we believe this last denomination (according to the English mode of enumeration) would stand thus in figures:—

1,000000,000000,000000,000000,000000,000000,000000,000000,000000,000000,000000,000000.

"Imagine, if you can, a grain of silica, or charcoal, or oyster-shell, (powerful remedies according to Hahnemann and his followers, in this attenuated condition,) divided into this number of parts: and one of these parts is not only fit and proper dose to be given as a remedy for severe diseases, but is an agent of such potent influence on the animal economy, that *one dose* of this amount will continue acting for thirty, forty, or fifty days, and must not be interfered with by any repetition of it, for fear of deranging or destroying its curative virtue! Thus, Hahnemann tells us that a sextillionth of a grain of carbonate of ammonia will act beneficially upwards of thirty-six days; that the decillionth of a grain of oyster-shell (*calcarea*) will require forty, fifty, and even more days, 'to effect all the good it is capable of;' that a similar

dose of plumbago (*graphites*) will act at least from thirty-six to forty-eight days; and a like dose of phosphorus, at least forty days."

Hahnemann was accounted an ingenuous man, and is supposed to have been sincere when he proclaimed these things. He has had honest and learned followers who have adopted them in good faith, and are practising upon them every day. When we object to them, that it is impossible that doses so attenuated can operate, the appeal is continually to experience. Besides, they tell us that these wonderful virtues are imparted by the "frictions and shakings" to which they subject their medicines; and that while they cure diseases if prepared in their peculiar manner, they are inert without such preparation. This, however, does not render the matter any easier of credence. If it is impossible to credit the efficacy of the decillionth of a grain of charcoal, when pounds might be taken with impunity, except for its mechanical disturbance, it is not a whit easier to believe that poundings in an unglazed mortar, and scrapings with a spatula, and shakings in vials with so many drops of water, can add to its efficacy. Clearly, it is impossible for most minds; unhappily, not for all. Some there are that soar above all difficulties, and can believe anything.

But this is not all that homœopathy requires us to accept; nor is it the worst. All this, it is asserted, has for its basis experience and experiment; but there is an important part of the system which is essentially hypothetical, and which even the disciples of Hahnemann find it difficult to assent to.—This is his doctrine of the origin and nature of chronic diseases, of which Dr. Forbes gives the following account:

"Hahnemann maintains that all these, or with hardly an exception, are derived from three cutaneous diseases, *syphilis*, *sycosis*, and *psora*, or common itch. Of the whole class of chronic diseases, he attributes one-eighth part to the two former maladies, and the remaining seven-eighths to the last. In nearly all chronic diseases, then, the real object of con-

sideration with the physician, and the thing to be cured, is not the ostensible diseases, but their all-pervading cause and basis, the psora, or itch. This psora he considers to be originally a disease of the whole system, which only shows itself locally on the surface in its progress. If it be cured in this form by local means, it infallibly gets worse internally, and may long subsist in this condition—for many years even—before it puts on the semblance of any formal chronic disease. In its amorphous state it may be so latent, that, although existing for years, the patient is entirely unaware of being out of health. Often, however, it is productive of a vast variety of obscure symptoms, which are seldom attended to, but which are recognizable by the adept. It is curable in this state; but it is seldom submitted to cure until it has declared itself under the guise of some more formal chronic malady. Then the patient seeks relief from medicine; and wo be unto him if he is treated by an allopath, or even by a homœopath on the general principles of homœopathy. No: it is not sufficient that the remedies prescribed are *similia similibus* simply; they must be taken from a special circumscribed class, named *anti-psoric*, discovered by Hahnemann to be gifted with a specific virtue for the cure of the itch and the itch diseases. It is laid down as an axiom, that *nature cannot possibly cure any of these chronic diseases;* but that, unless treated properly, that is, homœopathically and anti-psorically, they must infallibly get worse until they end in death. And it would seem that, although always curable by the proper remedies, they are as chronic in their cure as in their nature. The anti-psorics may work *tuto et jucunde*, but hardly *cito*, since we find Hahnemann declaring that no one but a quackish ignoramus can fancy that a disease of so long standing can be cured in a few weeks; or, if so cured, it is only for a time, to burst out with ten-fold fury by and by."

Now the whole of this is so purely fanciful, so monstrously absurd, that one has an impression as he reads it, that Hahnemann, when he put forth such nonsense, must have been experimenting upon the credulity of our race. If we should come for the first time upon such stuff in a book which had still to pass its ordeal before the public, and should fail to remember what follies and absurdities men have believed in, we would be amused at the hardihood of its author, and should not hesitate to predict, that it would be rejected by the whole

world with loathing and contempt. And yet even this *quinta pars* of German foolery has found believers, or men who profess to believe it, in all the walks of society, and in our own profession. Such persons scorn the dictates of reason, and it is a waste of time to expend argument upon them. Resting securely upon the teachings of a false experience, they have a single answer to all our objections; but that chances to be a very specious one—*that they cure diseases by their system.* Demonstrate that charcoal, silica, and oyster-shells are among the most inert of substances—render their practice as ridiculous as you please, they have the standing answer—"vain declamations must cease in presence of an experience that cannot err; our patients recover, taking oyster-shells and charcoal."

We say this answer is specious; it is one which the multitude will always deem satisfactory; yet long ago it was announced by the Father of medicine, "*experientia fallax*," and most signally does the observation of every day confirm the truth of the apothegm. The Steam-doctor, the Indian-doctor, the Faith-doctor, the Mesmerizer, all appeal to "an experience that cannot err;" and amulets, charms, and the royal touch, claimed to rest upon the same impregnable basis. How long before men will be taught the truth of the saying, "*post hoc, non ergo propter hoc?*" The homœopathists point triumphantly to the results of their practice. It cannot be otherwise than profitable to see how the account between them and the regular practitioners stands. Dr. Forbes makes the following exhibit of it, which the former party is very sure not to complain of:

"The Hospital of the Sisters of Charity at Vienna was opened in 1832. It is situated in a healthy suburb, and has thus advantages over the great general hospital of the same city. It contains at present upwards of fifty beds. In the beginning of 1835, the management of the hospital was committed to Dr. Fleischmann, and since that period all the patients have been treated according to the homœopathic system exclusively. In the Introduction to the Study of Homœopathy, by Drs. Drysdale and Russel, there is a transla-

tion of a report of Dr. Fleischmann, exhibiting a tabular view of the cases treated at this hospital during eight years—from the beginning of 1835 to the end of 1843. The total number of patients treated was 6551, and the following are the general results:

Remaining from 1834	27
Admitted	6524
Cured	5980
Dismissed uncured	112
Died	407
Remaining	50

"The list includes all the usual diseases, acute and chronic, found in hospitals, and some surgical cases. The following extract shows the number and events of some of the most important and best marked diseases:

	Admitted	Cured.	Uncured.	Died.	Remov.
Abscess of the brain	3	..	..	3	..
Apoplexy	9	4	2	3	..
Cancer of stomach and uterus	5	..	2	3	..
Amenorrhœa and Chlorosis	90	89	..	..	1
Ascites	14	10	1	3	..
Diarrhœa	114	112	..	2	..
Dysentery	44	42	..	2	..
Erysipelas of the face	181	177	1	2	1
Fever, excluding typhus	1036	1007	1	17	11
Typhus, abdominalis	819	669	2	140	8
Influenza	52	51	..	1	..
Dyspeptic affections	173	172	..	..	1
Gout, acute and chronic	102	97	1	4	..
Headaches, various	61	61	..	..	..
Articular inflammations	211	203	..	2	6
Meningitis	17	15	1	1	..
Bronchitis	15	15	..	..	..
Ophthalmia	51	30	1	..	..
Endocarditis	29	29	..	..	..
Pericarditis	2	2	..	..	..
Enteritis	6	1	..	5	..
Pneumonia	300	280	..	19	1
Peritonitis	105	100	..	5	..
Pleuritis	224	221	..	3	..
Measles	25	23	..	2	..
Phthisis	98	..	27	71	..
Rheumatism, acute and chronic	188	188	..	..	..
Scarlatina	35	31	..	2	2
Small-pox	136	120	..	11	5
Tonsillitis	300	299	..	..	1

"It is well known to all physicians accustomed to statistical inquiries, that, without a minute classification of the individual diseases included in any general report of cases, showing the sex, age, condition of patients, the precise character or *genius* of the prevailing diseases, the season, the date of the disease when brought under treatment, &c., &c., no trustworthy comparison can be instituted between any two lists of diseases, however similar in name, and although occurring in the same locality. The difficulty of comparison, will, of course, be considerably enhanced, when the countries, nature of the localities, general habits, &c., &c., of the patients, are different in the two cases. It would, therefore, lead to no useful purpose to institute any close comparison of Dr. Fleischmann's bare skeleton tables with any similar tables of diseases treated allopathically in this country or elsewhere. The conclusions deducible from such a comparison, whether for or against either mode of treatment, could not be admitted as of any positive weight in settling the practical question at issue. To enable us to do this effectually, we would require from each party an incomparably greater number of cases, observed and treated through a long period of time, and each disease discriminated, and all classified according to the rigid requirements of statistics. We do not, however, mean to say that such lists as those of Dr Fleischmann's are unworthy of notice and incapable of furnishing any information of consequence. This is not the case. Although yielding us no positive results of such data as science demands, they unquestionably furnish us with isolated facts of great value, and even supply materials which may be worked into such rude approximations to truth, as medicine has, alas, been too long content withal. These tables, for instance, substantiate this momentous fact, that all our ordinary curable diseases are cured, in a fair proportion, under the homœopathic method of treatment. Not merely do we see thus cured all the slighter diseases, whether acute or chronic, which most men of experience know to be readily susceptible of cure under every variety of treatment and under no treatment at all; but even all the severer and more dangerous diseases, which most physicians, of whatever school, have been accustomed to consider as not only needing the interposition of art to assist nature in bringing them to a favorable and speedy termination, but demanding the employment of prompt and strong measures to prevent a fatal issue in a considerable proportion of cases. And such is the nature of the premises, that there can hardly be any mistake as to the just-

ness of the interence. Doctor Fleischmann is a regular, well-educated physician, as capable of forming a true diagnosis as other practitioners, and he is considered by those who know him as a man of honor and respectability, and incapable of attesting a falsehood. We cannot, therefore, refuse to admit the accuracy of his statements as to matters of fact; or, at least, to admit them, with that liberal subtraction, from the favorable side of the equation, which is required in the case of all statements made by the disciples and advocates of new doctrines. Even after this rectification, we see that enough remains to justify the inference above deduced. No candid physician, looking at the original report, or at the small part of it which we have extracted, will hesitate to acknowledge that the resuls there set forth would have been considered by him as satisfactory, if they had occuired in his own practice. The amount of deaths in the fevers and eruptive diseases is certainly below the ordinary proportion; but, for reasons already stated, no conclusions favorable to homœopathy can be thence deduced. It seems, however, reasonable to infer that, even in these cases, the new practice was not less favorable to the cure than the ordinary practice. In all such cases, experienced physicians have been long aware that the results, as to the mortality, are nearly the same under all varieties of allopathic treatment. It would not surprise them, therefore, that a treatment like that of homœopathy, which they may regard as perfectly negative, should be fully as successful as their own. But the results presented to us in the severer internal inflammations, are certainly not such as most practical physicians would have expected to be obtained under the exclusive administration of a thousandth, a millonth, or a billionth part of a grain of phosphorus, every two, three or four hours. It would be very unreasonable to believe that, out of 300 cases of pneumonia, 224 cases of pleurisy, and 105 cases of peritonitis, (in all 629 cases,) spread over a period of eight years, *all* the cases, except the fatal ones, (27 in number), were slight, and such as would have seemed to us hardly requiring treatment of any kind. In fact, according to all experience, such could not be the case. But, independently of this *a priori* argument, we have sufficient evidence to prove that many of the cases of pneumonia, at least, were severe cases. A few of these cases are reported in detail by Dr. Fleischmann himself, and we have ourselves had the statement corroborated by the private testimony of a physician (not a homœopath) who attended Dr. F.'s wards for three months. This gentleman watched the course of

several cases of pneumonia and traced their progress by the physical signs, through the different stages of congestion, hepatization, and resolution, up to a perfect cure, within a period of time which would have appeared short under the most energetic treatment of allopathy.

"In examining Dr. Fleischmann's report, the sagacious physician will not fail to be struck by the fact, that the relative proportion of cures, and the relative mortality of the different diseases, one to another, are precisely the same as he is accustomed to see in his own practice. Slight diseases are all cured by the homœopathist, as by the allopathist; dangerous maladies kill a considerable proportion of the patients of both; very dangerous ones, a still larger proportion; and the class of diseases which all true observers and honest reporters have declared rebellious to their most strenuous medical efforts, are found to occupy the same black column in the tables of the old and new school.

"Thus: the cases of dyspepsia (173), the cases of headache (61), the cases of chlorosis (90), the cases of tonsillitis (300), the cases of simple rheumatism (188), the cases of bronchitis (15), are ALL *cured;* while we have 1 death in 52 cases of influenza, 2 deaths in 114 cases of diarrhœa, 2 deaths in 181 cases of erysipelas of the face, 2 deaths in 211 cases of arthritis. As we advance to the still more dangerous class of cases, we find the loss proportionably greater: thus, out of 44 cases of dysentery we have 2 deaths, out of 9 cases of apoplexy we have 3 deaths; out of 14 cases of ascites 3 deaths, and 1 not cured; out 1036 cases of ordinary fevers we have 17 deaths, while out of 819 cases of typhus we have 140 deaths; out of 524 cases of pneumonia and pleurisy we have 22 deaths; out of 105 cases of peritonitis 5 deaths, out of 136 cases of small-pox 11 deaths, out of 35 cases of scarlatina 2 deaths, and out of 6 cases of enteritis 5 deaths; while *all* the cases of cancer (5), *all* the cases of abscess of the brain (3), and *all* the cases of phthisis (98), are either registered as fatal, or as 'dismissed uncured'—which, of course, means the same thing. The only cases in the list which do not seem, at first sight, to come within the above category, are the cases of endocarditis (31), which are all reported as cured. These are, no doubt, severe diseases; and this may seem an uncommon amount of success; yet, when it is considered that the number of cases is not great, that the diagnosis of endocarditis, and even of pericarditis, is less easy and certain than that of many other diseases, and that it is not so much in their primary condition

as in their ultimate effects, that these diseases are dangerous, we believe that even the degree of success here recorded cannot, in fairness be admitted as any deviation from the ordinary course of events in allopathic medication.

"The remarks above made are even of more importance, in relation to the general subject now under consideration, than they may seem to be at first. They not only show that the *kind* of successes and failures experienced by the homœopathists, is precisely the same as that experienced by the allopathists; but they also seem to show that the medication of the former can boast of no *peculiar* virtue whereby it can achieve triumphs in fields altogether forbidden by the latter. Under the influence of medicines, all of which must be considered *new*—new absolutely, or new in their form, mode of administration, and principle of action—we would have hardly expected to find the old relations of curability and incurability exactly preserved. Does not this fact, common to both, seem to point to a *community of power, or want of power*, in the two classes of agents, rather than to a specialty of action and potency in one?"

This is a long extract, and the last that we shall make from the work. It contains much matter for grave consideration. We gather from it, and from other passages in the volume, that the author does not cherish the most exalted notions of the efficacy of medicine. It is painful to perceive this growing distrust in the minds of physicians as they advance in age,—and we believe the change is not uncommon in the experience of practitioners. From being too sanguine of the potency of remedies, at the opening of their career, they come, in the end, to be too skeptical of their efficiency. It cannot be questioned that Dr. Forbes is verging towards this latter extreme, and hence it does not surprise us to learn that some of his neighbors are hinting, that it begins to be time that he had abandoned the practice of physic, in company with that old Edinburgh friend of his whom he quotes with approbation, as saying, that "for two years he had cured his patients with less than the homœopathists, viz., with *nothing at all!*" Cicero wondered how two sooth-sayers could look one another in the face without laughing. We should sup-

pose two old fashioned practitioners of medicine, agreeing in such an estimate of the powers of their art, could hardly meet without losing their accustomed gravity of face.

But let us be just to Dr. Forbes. If his confidence in regular medicine is not great, he has no faith at all in homœopathy, which, he says, "has often failed to cure in cases in which allopathy did effect cures." He considers that the system is "calculated to destroy all scientific progress in medicine, and to degrade the minds of those who practise it,"—engaged exclusively as they are in search for and adaptation of specific remedies to symptoms; that its direct tendency is to sever medicine from the sciences, and establish it as a mere art, "thus converting physicians from philosophers to artisans." And with this conception of its character and tendencies, he conceives it to be the duty of "all who regard the prosperity and dignity of true art, to resist its progress." Has he thrown any obstacle in the line of its march by penning the article under review? We fear not. We greatly apprehend, on the contrary, that he has rather aided its progress.

If such then is his estimate of homœopathy, what is his explanation of the fact, that so many diseases are cured under its ministration? The answer is evident—*Nature effects the cures;* homœopathy does just nothing, and in an open field the *vis medicatrix* triumphs; making good the words of the poet—

> "For Nature then has room to work her way;
> And doing nothing often has prevailed,
> When ten physicians have prescribed and failed."

In this aspect, Dr. Forbes believes homœopathy has contributed something to scientific medicine; it has instituted a grand natural experiment in therapeutics which, as it is "likely to be prolonged through an indefinite period," will supply us, at last, with "a true *natural history of human diseases*, and the means of ascertaining the actual powers of nature in relieving or removing them." There is some truth in this view of

the subject, and it is precisely at this point that the claims of the "system" upon the respect of medical men, terminate. Its merits "have this extent—no more." It has taught us how powerful is nature in the cure of diseases when her efforts are seconded by a proper regimen; and in estimating the resources of homœopathy we must never overlook the dietetic principles upon which its practitioners wisely insist as a cardinal point of their therapeutics. In the stringency of their system we never read of anything that came up to them, except the "diet absolute" of the physician to the Governor of Barataria, in Don Quixotte, the famous Doctor Pedro Rezio de Aguera. The hostility of this worthy disciple of Hippocrates to fruit, "as being too moist," and to "meat as being too hot;" to roasted partridges because his great master condemned them, and to "stewed coneys, because they are a sharp-haired food," did not exceed the enmity of the homœopathists to many of the common articles of diet. Thus, in his Organon, we find Hahnemann proscribing the following things:

"Coffee, tea, beer, drinks containing aromatics, spiced chocolate, scents and perfumeries of all sorts, tooth-powders (liquid or pulverized) containing aught medicinal, perfumed bags, high-seasoned meats, ices and pastry flavored with aromatics, all herbs and roots having medicinal properties, cheese, meats too long kept, pork, goose, duck, too young veal. The following things are also prohibited: over-indulgence at table of all kinds, too much salt or sugar, all spirituous drinks, over-heated rooms, sedentary life, passive exercise on horseback or in a carriage, sleep after dinner, sexual pleasures, exciting books, uncleanliness, anger, vexation, scorn, exciting play, over-exertion of mind, marshy districts, confined localities where the air is stagnant, &c."

We say, the homœopathists wisely insist upon their rules of diet, and no one we suppose will dispute the truth of the remark. The following case, illustrative of it, occurred to us during the last summer, and the experience of every physician who has been long in practice, no doubt, will furnish

him with similar instances. A man, about 30 years of age, had removed a short time before from the country, where he had been treated actively with mercurial purgatives for a disease of the liver. His complexion was pale, and, altogether, he looked to us like one who had taken too much medicine. Accordingly we advised him to abandon drugs, except so far as was requisite to keep the bowels open, and to rely upon diet for the cure of his complaint. We saw him occasionally, and the system was evidently working well. This spring we met him, after several months, and he had grown fat, his complexion having become good, and his countenance wearing the peculiar expression of health. We were too curious to let him pass without endeavoring to learn how so happy a change had been wrought in his condition. His reply was very brief, but very satisfactory—"*I did'nt get well, sir, till I quit all medicines, and coffee and tobacco.*" What a case this would have been for the homœopathists, and how they would have exulted in its termination, as showing the superiority of "sepia, charcoal, and oyster-shells," over rhubarb, calomel and aloes! It is an instructive case, and certainly teaches that medicine is not always good.

But so saying, do we not condemn ourselves also? If we set down homœopathy, with Dr. Forbes, as a *natural history of diseases*—as showing what they are when left to themselves, the corollary is one not flattering to our professional vanity. That the sick often recover under the treatment of these practitioners it is useless to deny; that many acute and dangerous diseases have a favorable termination when subjected to no system of therapeutics but theirs, must be admitted; that they are *cured* homœopathically—by the millionth of a grain of nux vomica, or the quadrillionth (1,000000,-000000,000000,000000,000000.000000) of a grain of belladonna, or the decillionth of a grain of *sepia*—we certainly cannot admit. What then is the inference? Clearly, none other than this—that the curative powers of nature, unaided by art, would often accomplish what we now regard as tri-

umphs of medical skill. It is one which we feel no pleasure or pride in adopting; but if it is true, we do not profit at all by shutting our eyes to the truth. Medicine is not perfect; but there is enough about it intrinsically valuable and excellent to bear the touch of the most rigid inquiry. In adhering to it, after admitting all its deficiencies, we feel assured that, in the language of Dr. Forbes, we "are embracing a system which contains a considerable amount of truth, and a yet greater amount of good; and which, above all, is, or may be made, in its exercise, consonant with the principles of science, and is capable of indefinite improvement; while in rejecting homœopathy, we consider that we are discarding what is at once bad—useless to the sufferer and degrading to the physician."

A great *Reformation* in practical medicine, Dr. Forbes believes to be impending. This is his "*Young Physic*," who, in his estimation, has a task only a little less difficult than that of the infant Hercules to perform. We have not time to follow him through the Augean Stable he describes, and repeat his account of the nuisances in it to be abated.

With a good deal of truth, there is a large admixture of what is not true in this vigorous little volume on this subject, as well as some others—much that appears to be candid and fair, but much also that is exaggerated—a good deal of tenderness towards homœopathy, and not a little harshness towards scientific medicine; and it may be questioned, upon the whole, whether the author, by the representation he has given of the two systems, has conferred any real benefit upon his profession.

ART. VI.—*The Diagnosis, Pathology, and Treatment of the Diseases of the Chest.* By W. W. GERHARD, M.D., Lecturer on Clinical Medicine to the University of Pennsylvania; one of the Physicians to the Pennsylvania Hospital, &c. Second edition, revised and enlarged. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1846. 8vo. pp. 288.

The author of this volume has attained among the medical writers and practitioners of this country, an enviable distinction, and a work from his pen on the *Diseases of the Chest* will be accredited as the highest authority on that subject. Dr. Gerhard has had the most ample opportunities of studying disease in a large hospital, and for many years he has devoted special attention to thoracic complaints. As indicated by the title-page, this is the second edition of his work, important additions having been made to it, the results of his unwearied devotion to hospital and private practice. It forms, now, a very complete monograph on pectoral diseases, embracing not only the physical and general signs, but the treatment also of such affections. The work stands in no need of any commendation from us, having already by public opinion been assigned a place among our best indigenous medical productions.

ART. VII.—*A Compendium of the Lectures on the Theory and Practice of Medicine, delivered by Professor Chapman, in the University of Pennsylvania.* Prepared with permission from Dr. Chapman's manuscripts, and published with his approbation. By N. D. BENEDICT, M.D., Fellow of the College of Physicians of Philadelphia; Physician to the Lying-in Department of the Philadelphia Hospital. Philadelphia:—Lea & Blanchard. 1846. 8vo. pp. 258.

This Compendium embraces none of the matter previously given to the public in the two volumes, by Professor Chapman, on Diseases of the Thoracic and Abdominal Viscera.

and on Eruptive Fevers, &c., and is therefore a summary of only a part of the course of lectures delivered by that eminent teacher. The title of the work clearly expresses its character. It contains, in a small compass, the substance of what Dr. Chapman communicates in his lectures; and however little to the advantage of the author it may be to appear before the world in this fashion, it cannot be doubted that the practitioner of medicine will find a great convenience in having the matured experience of an able man thus served up in a nut-shell. We have not room to make quotations from the work; if we could do so, the reader would see that in this compendium he would possess a work, to which he might refer for practical hints on a vast variety of subjects—a '*receipt book*' on medicine, of the highest order of excellence, because emanating from one of the first minds in our profession. Such a compendium ought not to take the place of the elaborate lectures of which it purports to be the cream; but there is an office which it is well fitted to perform; and, as a remembrancer to the author's many pupils, and a book of easy reference for the practising physician, it is likely to be well received.

ART. VIII.—*Five Dissertations on Fever.* By GEORGE FORDYCE, M. D., F.R.S., Fellow of the Royal College of Physicians; Senior Physician to St. Thomas's Hospital, and Reader on the Practice of Physic in London. Second American edition with an Introduction. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1846. 8vo. pp. 403

This celebrated work, the author of which was born nearly a hundred and ten years ago, appears for the second time before the profession of this country, having been issued as a number of the *Select Medical Library.* The Introduction consists of an interesting biographical sketch of the author by Dr. John Bell, editor of the Library. A very bad style, tedious, at the same time that it is wanting in smoothness,

defective punctuation, and an arrangement which rendered it troublesome to refer to any particular passage in the Dissertations, account for their want of popularity. That they possess much intrinsic value, and are entitled to maintain a place among the many treatises which fever has since called forth, is the judgment of the best informed medical readers and critics. In a word, the work is entitled to take its rank among the classics in medicine, and we are ready to acknowledge the debt under which Dr. Bell has brought us by its republication; which will carry many a reader back with us to the days of our pupilage, when "Fordyce on Fever" made a part of the compact little library from which we were wont to derive instruction. Besides adding the Introduction, the American Editor has sub-divided the Dissertations, and affixed to each division a full table of contents, by means of which the difficulty of consulting the work is obviated. The number of practitioners is not small who will be glad of an opportunity of adding this volume to their stock of medical books.

ART. IX.—*A Clinical Introduction to the Practice of Auscultation, and other modes of Physical Diagnosis; intended to Simplify the Study of the Diseases of the Lungs and Heart.* By H. M. HUGHES, M,D., Fellow of the Royal College of Physicians; Assistant Physician to Guy's Hospital, &c. Philadelphia: Lea & Blanchard. 1846. 12mo. pp. 270.

We have just noticed the work of Dr. Gerhard on a subject kindred to the one of which the little volume of Dr. Hughes treats; but while that work embraces the treatment, as well as the diagnosis and symptoms of thoracic diseases, this is confined to these latter points. Its aim is to instruct the student how he shall proceed at the bed-side of patients, whose ailments of the chest he is trying to comprehend. "I know," says the author, "that after the perusal of works especially

treating of diseases of the chest, pupils, and practitioners too, are often quite incapable of instituting an ordinary examination, and of distinguishing the more common physical signs. With terms they may be sufficiently familiar; the theory of morbid sounds may not be unknown to them; but how they are to elicit some of these sounds, and how they are to distinguish others, they know not. They cannot, in fact, *practise* auscultation and percussion; and they are unacquainted with the mode of setting about it." It is only by practice that competent knowledge can be attained; but unless one has enjoyed the advantages of clinical instruction, he finds it difficult to take the first step towards the acquisition of such knowledge. This work was written to aid such beginners, and contains directions how auscultation and percussion are to be performed, as well as an account of the indications afforded by them. It has these decided advantages, that it is small, cheap, and intelligible; and written as it is by one who is thoroughly master of his subject, it is confidently recommended to every student or practitioner who needs a guide in his explorations of the Chest. The woodcut which is affixed will give the reader a good idea of the artificial divisions of the chest and abdomen.

ART. X.—*The Practice of Surgery.* By JAMES MILLER, F.R.S.E., F.R.C.S.E., Professor of Surgery in the University of Edinburgh; Surgeon to the Royal Infirmary; Author of Principles of Surgery, &c., &c. Philadelphia: Lea & Blanchard. 1846. 8vo. pp. 496.

So numerous of late have been the publications on Surgery in this country, that another volume on the same subject would hardly seem to be called for. The Lectures of Colles and Brodie, the popular volumes of Liston, and the works of the famous Sir A. Cooper, have all been issued within a few years, not to speak of the Principles of Surgery by the au-

thor of the present work, the reprint of Cooper's Surgical Dictionary, the New York edition of Velpeau's elaborate treatise on Surgery, and the splendid quarto volume on Operative Surgery by Dr. Pancoast. Judging from the quick succession in which these works have followed each other, the surgical spirit of our country must be high. The author of the volume before us modestly disclaims any intention to put it forth "in rivalry of the excellent works on practical surgery which already exist." It is intended as a companion to his "Principles of Surgery," the two volumes together forming a text-book, which he undertook at the request of his pupils. The fact that they have been adopted by other teachers of surgery, as text-books, is decisive proof of their adaptation to the wants of the learner. The manner of the author is the best, being simple, concise, and clear. The practitioner who has occasion to look into its pages, will find the *practice of Surgery* laid down in a readable compass, without circumlocution, or unnecessary citation of authorities.

ART. XI.—*The Natural History and Diseases of the Human Teeth.* By JOSEPH FOX, M.R.C.S.L., Member of the Society of Medicine, Paris; Lecturer on the Structure and Diseases of the Teeth, at Guy's Hospital; and Surgeon Dentist to their Royal Highnesses the Dukes of Kent and Sussex. First American, from the third London edition. *Remodled, with an Introduction and numerous additions.* By CHAPIN A. HARRIS, M.D., D.D.S., Professor of Practical Dentistry and Dental Pathology in the Baltimore College of Dental Surgery; Fellow of the American Society of Dental Surgeons; Member of the Medico-Chirurgical Faculty of Maryland; Author of Principles and Practice of Dental Surgery, &c., &c. Illustrated with thirty plates. Philadelphia: Ed. Barrrington & Geo. D. Haswell. 1846. Royal 8vo. pp. 440.

Within two years, we have been called upon to announce the appearance of three works on the Teeth, all of them voluminous, and two of them making a very imposing show. The one which forms the subject of the present notice,

comes before the profession in our country with all the advantages of a finished mechanical execution. Its size, paper, type, and pictorial illustrations place it in the first class of American books relating to Dentistry. The American editor enjoys a high rank among dental surgeons, and he has brought his brethren under renewed obligations, by inducing the liberal publishers to send forth the celebrated work of Fox in so tasteful a style. Dr. Harris is determined that the dentists of the United States shall possess a library; and in his own excellent treatise, and the one which is now offered for their acceptance, he has placed within their reach the most valuable stores of information relative to the anatomy, physiology, and diseases of the teeth. Dentistry, both as an art and science, must advance in our country, under so judicious and industrious a culture.

ART. XII.—*Elements of Physiology, including Physiological Anatomy, for the use of the Medical Student.* By WILLIAM B. CARPENTER, M.D., F.R.S., Fullerism Professor of Physiology in the Royal Institution of Great Britain; member of the American Philosophical Society; and Corresponding member of the National Institute of the United States, &c., &c. With 180 Illustrations. Philadelphia: Lea & Blanchard. 1846. 8vo. pp. 566.

Dr. Carpenter is the author of several works on Physiology which have been well received. His "Principles of Physiology," published some years ago, is in the hands of many of our readers; besides this elaborate work, he has written a "Popular Treatise on Vegetable Physiology," which Messrs. Lea & Blanchard have issued in this country; and another volume from his pen entitled "Principles of General and Comparative Physiology" is going through the press of the same publishers. The work before us is designed especially for students, as a manual to accompany them in the study of the elements of physiological science. It necessarily combines, in some degree, the scope of his two larger works, yet it has claims to be regarded as something more than a mere abridgment of them, the plan on which it is written being in many respects different. He commences his exposition of the char-

acters of "organized structures and of vital phenomena by a full account of the development and metamorphoses of *cells*, and of the purposes which these effect in the living body, either in their original or their altered condition." Dr. Carpenter believes that the inferences, which may be drawn from the observations on this subject, "are entitled to hold the same rank in physiological science as that taken by the doctrine of mutual attraction in general physics, or of elective affinity in chemistry." They are, therefore, early introduced in his treatise, and the chapter devoted to their consideration makes one-fourth of the entire volume.

The science of physiology was never more rapidly progressive than it is at the present day, and for this reason we require frequent publications on the subject to keep us informed of the accessions made to it from year to year. The author of the treatise under notice is an original laborer in this field, and is contributing his share towards the advancement of the science. His works are entitled to all the popularity they have enjoyed. His is a vigorous, comprehensive mind; he sees clearly the subject before him, and imparts to his readers a distinct notion of what he considers "the typical facts" of the science, without embarrassing them by details. The subjects of which his several volumes treat possess great attractiveness, and his readers, as they go along with him in the enunciation of his strange and wonderful truths, will find themselves charmed as well as instructed.

ART. XIII.—*Elements of Chemistry, including the history of the Imponderables and the Inorganic Chemistry of the late* EDWARD TURNER, M. D., F.R.S.L.&E. Seventh edition. *And the Outlines of Organic Chemistry*, By WILLIAM GREGORY, M.D, &c., Professor of Chemistry in the University of Edinburgh. *With Notes and Additions.* By JAMES B. ROGERS, M.D., Professor of General Chemistry, Franklin Institute; Lecturer on Medical Chemistry, &c.; and ROBERT E. ROGERS, M.D., &c., Professor of Chemistry and Materia Medica, University of Virginia, &c. Philadelphia: Thomas, Cowperthwaite & Co. 1846. 8vo. pp. 848.

As we remarked of physiology, just now, it is emphatically true of chemistry, that it requires a continual posting up,

in order that men may know what new triumphs it has been achieving. This work of Dr. Turner's was long the decided favorite in this country of all the treatises on Chemistry. So long as the author lived he continued to retouch it, issuing new editions from time to time, which embraced all the discoveries and improvements in the science. When his lamented death occurred, his "Elements" gradually declined, or were partially superseded by more modernized works. From this temporary eclipse it is the purpose of the editors to recover it, and we have no doubt their effort will be attended with success. All that this admirable system needed was a periodical revision, keeping it up with the march of chemical science. Having now been advanced to that point, it will not fail to resume its place at the head of the class of chemical text-books.

We received a copy of this valued work from the publishers through our enterprising booksellers, Messrs. Morton & Griswold.

ART. XIV.—*An Introduction to Entomology; or Elements of the Natural History of Insects: comprising an account of noxious and useful Insects, of their metamorphoses, food, stratagems, habitations, societies, motions, noises, hybernations, instinct, &c., &c.* With plates. By WILLIAM KIRBY, M.A., F.R.S.&L.S., Rector of Barham, and WILLIAM SPENCE, Esq., F.R.S.&L.S. From the 6th London edition, which was corrected and considerably enlarged. Philadelphia: Lea & Blanchard. 1846. 8v. pp. 600.

In the very entertaining book of travels, alluded to in our last number, styled the "Voyage of a Naturalist," the following amusing incidents are related by Mr. Darwin as having happened while he was in Chili: "One day, a German collector in natural history, of the name of Renous, called, and nearly at the same time an old Spanish lawyer. Renous, alluding to me, asked him what he thought of the King of England sending out a collector to their country to pick up lizards and beetles, and to break stones. The old gentleman thought se-

riously for some time, and then said: 'It is not well—*hay un gato encerrado aqui* (there is a cat shut up here). No man is so rich as to send out people to pick up such rubbish. I do not like it: if one of us were to go and do such things in England, do not you think the King of England would very soon send us out of his country?' Renous himself, two or three years before, left in a house at S. Fernando some caterpillars, under charge of a girl to feed, that they might turn into butterflies. This was rumored through the town, and at last the Padres and the Governor consulted together, and agreed it must be some heresy. Accordingly, when Renous returned, he was arrested."

Perhaps, some of our readers agree with the old lawyer, in his estimate of the value of entomology: if so, we are pretty sure of not receiving their thanks for introducing the above work to their acquaintance. We are well aware that the physician engaged in an engrossing practice, whether in town or country, has not much leisure for the perusal of books unconnected with his profession; but we know just as well, that while the few are thus immersed in business, the many have the command of more time than they are disposed to give to professional reading. How many are the hours wasted by nearly every young physician, waiting for practice—anxious, dreary hours, because unoccupied! Why not spend these hours in the study of such works as that of Kirby and Spence, wherein the physiologist, farmer, horticulturist, philosopher, and moralist, may find matter to instruct him. We have the authority of at least one wise man, that we may gain wisdom by studying the habits of the animals below us. "Go to the ant," are the well known words of Solomon, "thou sluggard, consider her ways and be wise; which, having neither captain, overseer, nor ruler, prepares her bread in the summer and gathers her food in the harvest."

It is wise in us to enlarge the sphere of our intellectual enjoyments; and by few things can we do so more effectually than by cultivating a taste for natural history. To the Padres and Governor of Chili it appeared a very senseless if

not heretical business, to be hatching butterflies, and breaking stones; but for the man whose taste has been improved by study, there is a charm in every walk of nature—in the humblest insect tribes, volumes of instruction—'sermons in stones, and good in everything.' Does not medicine owe to the insect race a valuable remedy; and is it not to the same race that we are indebted for honey and for silk? But not to pursue these commonplaces, we close our notice of this volume on Entomology, which will be found by those who read it rich in curious information, by a short extract concerning the medical relations of insects, of which the authors say: "Had I addressed you a century ago, I could have made this an ample history. Amongst scores of infallible panaceas, I should have recommended the *woodlouse* as a solvent and aperient; powder of *silk-worm* for vertigo and convulsions; *millepeds* against the jaundice; *earwigs* to strengthen the nerves; powdered *scorpion* for the stone and gravel; *fly-water* for disorders in the eyes, and the *tick* for erysipelas. I should have prescribed *five gnats* as an excellent purge; *wasps as diuretics;* lady-birds for the colic and measles; the cockchafer for the bite of a mad dog and the plague; and ants and their acid I should have loudly praised as incomparable against leprosy and deafness, as strengthening the memory, and giving vigor and animation to the whole bodily frame. But these good times have long gone by. You would, I fear, laugh at my prescriptions notwithstanding the great authorities I could cite in their favor; and even doubt the efficacy of a more modern specific for toothache, promulgated by a learned Italian professor, who assures us that a finger once imbued with the juice of *Rhinobatus antiodontalgicus* will retain its power of ouring this disease for a twelvemonth!"

This beats homœopathy.

Kirby & Spence, Carpenter, Miller, &c., may be found at the bookstores of Jas. Maxwell and F. W. Prescott, in this city.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Cause, Nature, and Treatment of Western Fevers.—Dr. Hunt, of Wisconsin, has the following remarks on this subject in the Boston Medical and Surgical Journal. Everything written concerning Western fevers has interest for those who practice physic where they prevail. Among the original communications in this number we publish the speculations of Dr. Harris, touching malaria, and the *modus operandi* of febrifuges. Dr. Hunt's views on the same subjects are given in a summary style; it will be interesting to compare the conclusions of two writers who have studied the phenomena of the same disease a thousand miles apart.—Eds.

1. Marsh miasm is a subtle virus, and the material agent that produces the various (so called) bilious fevers of the West.
2. This poison is inhaled, enters the circulation, and acts as a disturbing cause in the system of nutrition.
3. It destroys the healthy balance between composition and decomposition, or assimilation and metamorphosis, diminishing or entirely suspending the former, and morbidly increasing the latter.
4. The metamorphosis of the vital tissues does not result in the formation of cholic acid and urate of ammonia, or proper bile and urine, but in an *abnormal* transformation.
5. The transformation of the living organism does not

consist in the oxidation of its constituent elements, and the consequent formation of carbonic acid matter and animal heat, as is the case in inflammatory fevers and those of high reaction.

6. For want of centrifugal force, or in consequence of the sedative influence of the poison, this mass of transformed animal matter with the blood is accumulated in the central vascular system, and in consequence of a deficient hæmatosis the blood is rendered dark and thick.

7. Congestion consists in an overloaded state of the vascular system with this impure blood, and an engorged and obstructed condition of the liver, and a consequent determination of blood to the head.

8. The brain, in all cases of portal congestion and hepatic obstruction, suffers in consequence of a deficient inferior circulation, while the balance is thrown upon the brain, constituting what might with propriety be called *hyperæmia of the encephalon*, which may, and in fact often does terminate in inflammation of this organ in fatal cases of congestive fever.

9. There are three grand indications to be fulfilled in the treatment of congestive fever, whether of the intermittent, remittent, or continued form; viz: 1, recall the circulation to the surface and extremities; 2, stop the *morbid* metamorphoses of the vital tissues; 3, unload the liver and keep up a free discharge of "bilious matter"(?) until the blood is renovated.

10. The first indication is fulfilled by the use of stimulants, externally and internally.

11. The second, by the introduction into the system of some eutrophic agent, such as quinine, salacine, arsenic, &c., which will act on the system of nutrition, neutralizing the poison or fortifying the vital powers against the chemical, or the force of assimilation against that of transformation, and thereby restore the balance between these two opposing movements in the animal economy.

12. The third and last indication is fulfilled by emetics, deobstruents and laxatives. Ipecac. makes the best emetic; calomel the best deobstruent; castor oil, rhubarb, and jalap, the best cathartics.

13. Drastic cathartics should generally be avoided, especially in the first stage of the disease. They do hurt by irritating the mucous membrane of the alimentary canal, and therefore increasing the congestion by diminishing the centrifugal force, or rather by increasing the centripetal; also by

producing a serous discharge from the portal capillaries without acting particularly upon the liver, thereby rendering the blood in the portal vessels more thick and gluey, which is already too much so to circulate readily through this organ. At the same time severe purging tends powerfully to debilitate the patient, without the least possible gain in the first stage, except it unloads the bowels of fecal matter. But in the latter stage of the disease, after the "bilious matter" is discharged in large quantities into the bowels, it is necessary to give pretty active and frequent cathartics.

14. Profuse perspiration is of no use, but on the contrary it thickens the blood and debilitates the patient.

Note.—I have known patients, almost destitute of fat, laboring under congestive fever, to lose five pounds in weight a-day for several days in succession; and the only secretions that were materially increased, were those of the liver and bowels. The discharge was homogeneous, mostly black, and of a semi-fluid consistency. The respiration was slow and oppressed, and the surface and extremities cool; the pulse slow and soft. Now if the tissues did not pass off through the liver and bowels, where did they find their exit?

On the Treatment of Placenta Prævia. By J. J. Tweed, Jr., M.R.C.S. Eng., London.—As the question of treatment in cases of placenta prævia is still undecided, and the opinions of many of the most eminent accoucheurs at variance on the point, a case, illustrative of the safety of what may be called the 'new practice,' (although in reality not so), cannot, I think, be otherwise than interesting at the present moment, especially when the importance of the subject is taken into consideration. Statistics have already shown the comparative merits of the two modes of treatment; still, it behooves every one, whatever the practice he adopts, to publish the result, successful or unsuccessful. Where the opportunities for observation occur (fortunately, we may say) so rarely, it is difficult for a man to form an opinion on his own experience alone; on these grounds, I venture to ask a space in your valuable journal for the publication of the following case:—

I was hastily summoned to attend a patient, Mrs. D., aged 22 years, residing in Union-street, in the seventh month of her second pregnancy, (she had a miscarriage, at the fourth

month, a year ago,) on Sunday morning November 7th. On my arrival, I learned that labor pains had come on quite suddenly, about nine o'clock, (it was now half past ten), accompanied with profuse discharge which was increased at each pain. She was in a sitting posture, countenance pallid, complained of being 'faintish,' with short pains recurring at intervals of three or four minutes. I immediately had her placed in bed, and on moving her, observed a quantity of coagulated blood on the carpet, over which she had been sitting, and her clothes were also saturated. On examination per vaginam, the uterus was found high up, the os uteri dilated to about the size of a shilling, thick and rigid; passing the finger within the os, the placenta could be distinctly felt, attached immediately over it; each contraction of the uterus gave rise to a gush of blood. I immediately plugged the vagina. At the end of two hours, the plug being removed, the os uteri was found less rigid, thinner, and dilated to the size of a crown piece, each pain forcing the presenting portion of the placenta partly through; as far as the finger could reach, no adhesion of the placenta could be detected. The hemorrhage was now much diminished; in fact, it had almost entirely ceased. Dr. Murphy, who now kindly saw the case with me, advised again the plugging of the vagina, and if hemorrhage returned to any extent, to introduce the hand, and turn the child immediately. Two hours elapsed, at the expiration of which the plug and placenta were both expelled. No further hemorrhage occurred; the head of the child, with one hand, partly protruded through the os uteri at each pain. I now allowed the labor to proceed naturally for about an hour; the pains then becoming rather inefficient, two doses of the secale cornutum were administered, and the birth of a still-born child took place, exactly an hour after the expulsion of the placenta. The uterus contracted firmly, and the patient is doing well.—*London Lancet.*

The Royal Academy of Medicine and the King of the French. It is usual for the more important public bodies in France to present to the King, on New Year's Day, an address, to which he generally makes some reply. In accordance with this annual custom, a deputation from the Academy of Medicine was admitted to the royal presence on 1st day of January, when the following address was delivered by the President:—

SIRE:—The Royal Academy of Medicine, through our voices, respectfully unites in the concert of gratitude and affection which rises to the throne from every part of France.

Happy to think that it deserves the powerful protection with which your Majesty honors it, the Academy pursues with zeal the course of its useful labors. To endeavor to solve the numerous and varied questions which interest public health; to pursue and forward the progress of science; such is the double mission which is confided to the body which we represent. All the labors, all the desires, of the Academy are directed to one object—the faithful performance of the duties with which it is entrusted; and it dares to hope that its efforts have not remained quite sterile. If it is true that public esteem and approbation have rewarded the endeavors of the Academy, the thanks of its members are due to your Majesty, who deigns to afford to it encouragement, protection, and support.

May the Academy, Sire, present you, as to-day, for many years, the homage of its labors, and the tribute of the gratitude which it feels. This is its most ardent wish as it is that of all France, the tranquility, prosperity, and happiness of which are so intimately connected with the preservation of your valuable existence.

The King answered in the following terms:—

I am gratified and moved by the sentiments expressed in the name of the Academy of Medicine; I appreciate the importance and the utility of your labors, and I am happy to learn that the protection which I so willingly give to the Academy has contributed to increase the merited consideration which it commands. No one better than I can appreciate the services which you render, of which, indeed, I am myself a good example; for in spite of my seventy-two years, I am in good health, as you see. May you gentlemen, long continue to serve humanity and science.

Ibid.

Rupture of the Stomach in a Boy. By J. STEWART ALLEN, Esq., Resident Surgeon to the St. Marylebone Infirmary. On Thursday, December 11th, 1845, an inquest was held at the St. Marylebone Infirmary, before Mr. Wakley, M.P., on the body of a boy named James Geogehan, aged 10 years.

The boy had been an inmate of the workhouse for upwards of eight years, during which time he had been frequently ailing, but on the Sunday previous to his death he had appeared in his usual health. On Sunday night, about 12 o'clock, the nurse of the school heard him moaning in bed, and afterwards going to the water-closet. She rose and questioned him. He complained of extreme pain over the abdomen, which was much enlarged. He was brought over to the Infirmary about a quarter before 1 o'clock on Monday morning. When admitted, he was in a state of collapse, countenance sunk, extremities cold, and pulse not perceptible at the wrist; he had an increasing desire to vomit, but could bring nothing up; the abdomen was greatly distended, and very tense. Warmth was applied over the body, mustard sinapisms, turpentine fomentations, &c., and stimulants were administered internally, but without effect; he gradually sank, and died at half past 3 on the same morning, about four hours (as well as could be ascertained) after his first complaining of pain.

The following were the post-mortem appearances:

The abdomen was enormously distended, the false ribs being pushed outwards, quite altering the natural shape of the body; the lungs were healthy; the pericardium so intimately adhering to the heart that it could not be separated. On opening the abdomen, a rush of fœtid air took place; the stomach was found collapsed, much enlarged, and stretching across the abdomen; the small intestines were also much distended with air and semi-digested food. On raising the stomach, a rupture was found to have taken place at its cardiac extremity, through which a portion of the contents had escaped into the abdomen; the stomach still contained about a pint of pulpy semi-digested food. On removing the contents the mucous membrane was found to be soft, and presented a mottled appearance; the pyloric extremity was much thickened, and firmly contracted, inclosing in its folds two small pieces of potato; so close was the contraction, that when the stomach was filled with water, it would not permit a drop to pass. The cæcum was contracted, and throughout, the calibre of the large intestines was very small, in some places not being wider than a common quill; there were portions of the large intestines, each about an inch and a half in length, of a dull reddish color; there was considerable congestion of the veins on the surface of the brain, but in other respects that organ was healthy.

This case is remarkable as one of spontaneous rupture without ulceration; but it should be remarked that the boy

had for some years suffered from deficient nutrition; he generally ate largely, but seemed to derive little benefit from his food. The stomach has since been examined with the microscope. The white spots which gave the mucous membrane a mottled appearance, were found to be mucous follicles much enlarged, and distended with their natural secretion; the mucous membrane was soft, and loaded with fluid. These were the only morbid appearances that could be detected in the coats of the stomach.—*Ibid.*

Potato Disease.—Dr. Playfair, in a lecture lately delivered to the Royal Agricultural Society, at the Royal Institution, stated, that he concluded from all his researches into the potato disease, that the potato labored under *dropsy!*—a singular enough conclusion for a chemist to draw; for a sound and a diseased potato, each dug from the same locality or root, when sliced and dried, will be found to contain as nearly as possible a like proportion of moisture.—*Ibid.*

Alleged Cure for Rheumatism.—A worthy, kind-hearted gentleman assured us the other day, that he was in possession of a never failing remedy for rheumatism, in all its protean forms. It was this: carry a bit of brimstone in the pantaloons pocket, habitually, and never be without it. On asking for an explanation of the principle upon which the disease was either cured or kept at bay, he at once solved the problem by saying the sulphur was absorbed by the blood, the seat of the malady!—*Boston Med. and Surg. Jour.*

Fever in Africa.—The days of out-and-out Broussaism are, thank God, passed; and medical men, even in France, have now found out that a fever is not necessarily an inflammation. The possession of Algieria, if it has not been very useful to our neighbors in a commercial or political point of view, has at least, had the effect of teaching the medical officers of their army—and the important lesson has gradually extended itself to the civil practitioners—to abandon many of the principles of their early professional education in Paris, and to have recourse to a more enlightened and successful

method of treating the fevers of Africa, which are almost invariably of a remittent or intermittent character. Bark, opium, and wine, have, in a great measure, taken the place of venesection and ptisans. In these fevers, it is of the highest consequence to keep up the spirits of the patient; for the state of the mind has no inconsiderable influence in aiding or in counteracting the effects of the remedies employed for their subjugation. Often has the expected fit of ague been observed not to occur, if the attention has been intensely occupied by something of absorbing interest, or if the feelings have been strongly roused by some joyous or alarming intelligence.—*Med. Chir. Rev.*

Devergie's Ointment for Chilblains.—Lard, seven drachms and a half; creasote, ten drops; solution subacetate of lead, ten drops; watery extract of opium, a grain. Mix for an ointment.—*Dub. Hos. Gaz.—Ibid.*

Artificial Teeth.—The manufacture and application of artificial teeth have been brought to such perfection during the last fifteen or twenty years, that, when properly fixed in the mouth, it is difficult for a common observer to tell wherein they differ from the natural organs. They are made so as not only to resemble these, but also to be worn with comfort and to subserve, to a considerable extent, the purposes for which they are designed. But notwithstanding the perfection to which this branch of the dental art has been brought, the bungling and clumsy manner in which they are constructed and applied by, perhaps, a majority of dentists, it is really questionable whether in the aggregate, they are not productive of more injury than benefit. That a vast amount of mischief does result from their application, is undeniable. But, however much this is to be regretted, it is an evil which cannot be remedied, as long as empiricism in dentistry is encouraged and prevails to the extent to which it at present does.

In the application of an artificial crown to the root of a natural tooth, the simplest of all the methods of inserting artificial teeth, much judgment is required to determine the circumstances under which the operation ought, or ought not to be performed. It may be productive of incalculable advan-

tage or injury, as it may be performed under favorable or unfavorable circumstances. For example, an artificial crown skilfully applied to a perfectly sound root situated in a socket free from all disease and morbid tendency, and in the mouth of a person of a good constitution, constitutes the very best and most durable substitute that can be employed for the loss of the crown of a superior incisor or cuspidatus; but if applied to a dead root or to one situated in a diseased alveolus, or from which there is a discharge of fœtid matter, or to one which is very soft and situated in the mouth of an individual of an exceedingly susceptible habit of body, it may be productive of lasting and irreparable injury.

In the application of artificial teeth on plate, either with or without clasps, a much greater amount of judgment, skill, and a more perfect knowledge of the laws of the economy, both in health and disease, are required, in order to secure to the patient the advantages capable of being derived from such substitutes, and to prevent the injury liable to be produced by them when constructed and fixed in the mouth in an improper manner. It is important that they should be so adjusted and applied as to restore the symmetry and contour of the face and to be useful in the mastication of food, in enunciation, and to be worn with ease and comfort by the patient. To secure these advantages, the teeth should be of the right size and color, correctly arranged on the plate, and this latter accurately adopted to all the inequalities of the parts on which it is to rest. If the contrivance is to be held in the mouth by means of clasps, these should be wide, and so applied to the teeth intended to be embraced by them, as to give to it the greatest stability, and, at the same time, without exerting any unequal or undue pressure upon them, and in such a way that the piece may be easily and readily removed and replaced by the patient.

But preparatory to their application, the remaining teeth, if there be any in the mouth, and the gums should be in a healthy condition, and it is oftentimes necessary to wait from six weeks to six months, after having instituted the necessary preparatory surgical treatment, before artificial teeth, fixed on plate, can be permanently and advantageously applied, for the reason, that the shape and size of the alveolar border, after the removal of the teeth, undergo a very great and striking change. If the teeth be applied before the completion of these, the plate will soon lose its adaptation, and bear unequally on the parts which it covers, and thus, be productive of irritation, as well as afford lodgments in the places where

it does not touch, to extraneous matter, which soon becomes offensive and imparts to the breath an offensive odor.

It is equally improper to apply a plate over the roots of teeth. Whenever it is done, the softer parts around them become inflamed and spongy, and vitiate the secretions of the mouth. In this way, they are not only rendered hurtful to the remaining teeth, but also unfit for the purpose for which they are designed. Besides, a dental substitute thus applied, cannot be worn with comfort or satisfaction, nor be made to subserve any valuable purpose whatever.

But it is often necessary to apply artificial teeth almost immediately after removing the natural ones. In this case, a temporary set should be prepared, which, however, should only be worn when it is absolutely necessary, but in no case should a plate be applied over a dead root.

When the substitute is held in the mouth by means of clasps, it should be removed twice a day, and cleansed. The teeth, too, to which the clasps are applied, should also be thoroughly cleansed every time it is removed. These are pre cautions which should be strictly observed by all who wear artificial teeth inserted in this manner. If they be neglected, the secretions of the mouth which get between the clasps and the teeth, will become corrosive, and, sooner or later, cause the destruction of the latter.

The foregoing remarks are thrown out as hints to the young and inexperienced practitioner. We might say much more, but our limits, at present, will not permit us to enlarge upon the subject. At some future period we may enter more into detail.—*Stockton's Dental Intelligencer.*

Case of Extreme Diffusion of Odors.—Dr. Wilcocks, in the Philadelphia Medical Examiner, states the following fact:

When at sea, two years ago, two hundred miles to the westward of the coast of Ireland, myself and many of the other passengers observed a smoky odor, which lasted during several successive days. An appeal was made to our captain for an explanation of the phenomenon. He informed us that he had frequently remarked it before, and that it was owing to the long continuance of the easterly winds, which carried the odor of *burning peat* far out to sea.

Opium Treatment of Rheumatism.—The most important rule to be remembered in employing opium for the cure of acute rheumatism is, that *full and sufficient doses* shall be exhibited. I have heard of the opiate treatment having disappointed those who have tried it. On inquiry, I have learned that in those cases it has been given only to the extent of a grain every fourth or sixth hour. This is not the treatment of rheumatism by opium; it is making the patient worse than before; it is inflicting on the patient the mischief arising from the stimulant effects of the drug, and withholding from him all the benefits of its sedative influence. The opium should always be increased in dose, both as to frequency and quantity, until the patient feels entire relief; and should be then kept up at that dose until the complaint is steadily declining. *Dr. Corrigan* in *Med. Exam.*

Premature Interments.—It is stated that the cases of premature interments in France, prevented by fortuitous circumstances, amount, since the year 1833, to 94. Of these 35 persons awoke of themselves from their lethargy at the moment the funeral ceremony was about to commence; 13 recovered in consequence of the affectionate care of their families; 7 in consequence of the fall of the coffins in which they were inclosed; 9 owed their recovery to wounds inflicted by the needle in sewing their winding sheet; 5 to the sensation of suffocation they experienced in their coffin; 19 to their interment having been delayed by fortuitous circumstances; and 6 to their interment having been delayed in consequence of doubts having been entertained of their death. *Prov. Med. & Surg. Jour.—Med. Exam.*

Asserted Injurious Effects of the Manufacture of Lucifer Matches.—Several German practitioners, and among others, M. Heyfelder, clinical professor of surgery at Erlangen, have published a number of cases of necrosis of the maxillary bones, which they attribute to the influence of the materials used in the manufacture of lucifer matches, the patients having thus been employed. M. Bricheteau, wishing to verify the accuracy of these statements, with reference to the asserted cause of the disease, has carefully visited all the manufactories in

which chemical matches are made in Paris and the neighborhood. The results of M. Bricheteau's investigations do not appear to confirm the statements made in Germany. Among the two thousand workpeople, men and women, who are thus employed in or near Paris, it does not appear that a single well-authenticated case of necrosis of the maxillary bones has occurred. Three or four cases of disease of the maxillary are mentioned by him, but he states that the disease was either syphilitic, or existed before the patients had worked at the factory.

The manufacturers have remarked, that the vapors that result from the instantaneous combustion of the matches, which contain sulphurous acid, and phosphorous and phosphoric acid, make the workpeople cough, and that the coughs thus occasioned are more troublesome in winter than in summer, owing to the ventilation of the workshops not being then so good; but they have not observed any other symptoms.—*Jour. de Méd.—Bos. Med. & Surg. Jour.*

National Medical Convention.—The National Medical Convention at New York, having transacted all the business for which it was convened, adjourned to meet at Philadelphia on the first Wednesday in May next. The following resolution offered by Dr. O. S. Bartles, of New York, led to a protracted discussion in the convention, and was finally referred to a committee, with directions to report on the subject at the meeting in Philadelphia:

Resolved, That the union of the business of teaching and licensing, in the same hands, is wrong in principle, and liable to great abuse in practice. Instead of conferring the right to license on medical colleges, and State and county medical societies, it should be restricted to one board in each State, composed, in fair proportion, of representatives from the medical colleges, and the profession at large, and the pay for whose services, as examiners, should, in no degree, depend on the number licensed by them.

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LOUISVILLE, JUNE 1, 1846.

NATIONAL MEDICAL CONVENTION.

This body assembled, Tuesday the 5th of May, at the University Medical College, in the city of New York. The assemblage embraced one hundred and twenty-seven members, from sixteen States. The medical schools represented in the Convention were, the two schools of the city of New York, the Geneva Medical College, the Vermont Medical College, the Berkshire Medical Institute, in Massachusetts, Medical Institute of Yale College, the Albany Medical College, the Pennsylvania Medical College, the Washington Medical College of Baltimore, La Porte University, the Illinois Medical College, the University of St. Louis, and the Franklin Medical College. Among the teachers in medical schools, we remark the names of Professors Pattison, Bedford, Parker, Knight, Lee, Beck, Patterson, Atlee, Baxley, Pope, and Clymer. Several editors took part in the deliberations of the Convention, among whom were Dr. John Bell, Dr. Hays, Dr. Fenner, Dr. Lee, and Dr. Flint.

A temporary organization, preparatory to the regular proceedings of the Convention, was effected by the nomination of Dr. Bell, of Philadelphia, as Chairman, and Dr. Buell, of New York, as Secre-

tary. Dr. Knight, of New Haven, was elected President of the Convention; Dr. Bell, and Dr. Delafield, Vice Presidents; and Dr. Stillé, of Philadelphia, and Dr. Arnold, of Savanah, Secretaries.

Dr. Bedford offered the following resolution which he accompanied by some remarks intended to show that it was useless to proceed unless the convention were what in truth it ought to be, and what it is called, a *National Convention.*

"Whereas, the object of this Convention has not been carried out; and whereas, a full representation from the Medical Colleges and Universities is necessary; and whereas, the call has been defeated by the absence of the necessary members from the various parts of the Union, that, therefore, this Convention do adjourn *sine die.*"

This motion was lost by a vote of 74 to 2; whereupon Dr. Clymer, of Philadelphia, offered the following resolution:

"*Resolved*, That a Committee be appointed to provide other accommodations than the present for the sittings of this Convention."

Dr. Beadell, of New York, moved as an amendment, "that this Convention do immediately adjourn to the rooms of the College of Surgeons and Physicians." Dr. Bedford made a brief explanation, in which he disavowed any sentiments of hostility or disrespect towards the Convention. Dr. Pattison followed his colleague in the same strain, and concluded by remarking, that, after these explanations, "if the Convention think right to refuse the courtesies and civilities of the Faculty of the University of the City of New York, all he had to say was, 'God speed them.'" The disclaimers were esteemed satisfactory, and the removal did not take place.

The Convention was in session two days, and when it adjourned it did so to meet at Philadelphia in May next. Among the resolutions adopted we note the following, as among the most important. They were offered by Dr. Hays, editor of the American Journal of the Medical Sciences, and seconded by Professor Pattison.

"*Whereas*, It has been shown, by experience, that the association of persons engaged in the same pursuit, facilitates the attainment of their common objects; therefore,

"*Resolved*, That it is expedient for the medical profession of the United States to institute a National Medical Association, for the protection of their interests, for the maintenance of their honor and respectability, for the advancement of their knowledge, and the extension of their uselfulness.

"*Resolved*, That a committee of seven be appointed to report a plan of organization for such an association, at the meeting to be held in Philadelphia on the first Wednesday in May, 1847.

"*Resolved*, That a committee of seven be appointed to prepare and issue an address to the different regularly organized Societies and chartered Medical Schools in the United States, setting forth the objects of the National Medical Association, and inviting them to send delegates to a Convention to be held in Philadelphia, on the first Wednesday in May, 1847.

"*Resolved*, That it is desirable that a uniform and elevated standard of requirements for the degree of M.D., should be adopted by all the medical schools in the United States, and that a committee of seven be appointed to report on this subject at the meeting to be held in Philadelphia on the first Wednesday in May, 1847.

"*Resolved*, That it is desirable that young men, before being received as students of medicine, should have acquired a suitable preliminary education, and that a committee of seven be appointed to report on the standard of the acquirement which should be exacted of such young men, and to report at the meeting to be held on the first Wednesday in May, 1847.

"*Resolved*, That it is expedient that the medical profession in the United States should be governed by the same code of medical ethics, and that a committee of seven be appointed to report a code for that purpose at the meeting to be held at Philadelphia on the first Wednesday in May, 1847."

We are truly gratified at the results of the Convention, and especially at the perseverance manifested by its members. They were not discouraged by the partial attendance, but resolved to hold on and hold out, until more interest should be awakened in the minds of the profession. We predict that the next Convention will be more generally attended,—that the medical schools and societies will be more numerously represented, and that great benefits will yet flow from these assemblages.

We have compiled this hasty sketch of the proceedings of the Convention from the New York papers. A more detailed report may soon be expected, the Convention having decided to publish its proceedings in pamphlet form, and to distribute ten thousand copies of the same among the profession.

FACTS FROM CORRESPONDENTS.

ASAFŒTIDA NO PREVENTIVE OF MEASLES.

Dr. Stahl, of Quincy, Illinois, thinks it worth his while to show, that Dr. Harper (see vol. 3, this Journal, new series, p. 455) has not made out the claims of asafœtida to be regarded as a preventive of measles. We make the following extracts from his letter, deeming any lengthened discussion of the subject quite unnecessary.

"In order to prove anything a preventive, we must first prove that measles is contagious, which I think would be very difficult to do, and secondly, we must prove that when it rages epidemically, every person who has not had the disease, must necessarily be attacked by it. To examine these two points, however, would lead me beyond the limits which I set for this note. My object is merely to disprove the arguments of Dr. Harper by my own direct and but recent experience. Neither myself nor any of my children ever had the measles. During the recent prevalence of that disease in this city and neighborhood, I attended and saw at least one hundred cases in all its various stages, handled the patients while they were in perspiration, sat on the side of their beds; in short, was in the closest contact with them, and not seldom in ten minutes after thus handling a patient with measles, and without washing my hands or changing my clothes, I would nurse or play with my own children, and *yet neither myself nor any of my children have as yet manifested the least symptoms of the disease.*

"Had I or my family, during the prevalence of the disease, used any soi-disant preventive, I might, like Dr. Harper, have been induced to give it the credit of our protection."

April 10th, 1846.

A Case of Hydrothorax successfully treated. By Drs. Crum and Brysacher, of Stark county, Ohio.

James Wolf, æt. 18 years, of delicate constitution, a chair-maker by occupation, had been two months under medical treatment when first seen by us. We found him extremely debilitated, with hard pulse; carotids throbbing; palpitation of the heart; anorexia; epistaxis; water in the chest, which was heard making its peculiar sound when he shifted his position. In consequence of the hydropic collection he was unable to lie down, and slept sitting propped up in bed. His feet were much swollen, and from his long confinement in his extremely emaciated condition bed sores had been formed about the sacrum and coccyx.

Reduced as was the patient we resorted to venesection. Afterwards we applied a blister over the sternum, and followed this by tartar emetic ointment to the same part. In addition, we gave him calomel, squills and gamboge, as a purgative and diuretic, and employed nitrate of potash and digitalis with a view to the reduction of arterial excitement. By a steady perseverance in this course for six weeks, the young man was relieved of all his distressing symptoms, and is now in robust health.

April 27th, 1846.

A Case of Self-Emasculation. By C. Gliddon Young, M.D., of Greenwood, La.

I was called in the fall of 1837, to see Mr. P., a married man, in respectable circumstances, aged about 35 years, the father of five children, who, in a state of mental despondency, produced by religious excitement and domestic troubles, had emasculated himself. He was an exemplary member and class-leader in the Methodist church, and was much in the habit of shouting, which was so disagreeable to his wife that she required him to desist, on pain of forfeiting his connubial rights. Shortly afterwards she discovered that he had deliberately sharpened his knife and maimed himself as above mentioned; taking out first one testicle and then the other, after the manner of castrating pigs. As he was ignorant of the danger of hemorrhage, or the means of guarding against it, he had cut the cord directly across, and both spermatic arteries were bleeding when I got to him. I found him almost exhausted from the loss of blood; he had fainted several times; the scrotum was filled with coagula. I quickly cleared the coagula from one side, and found that the cord had retracted so far within the abdominal ring as to be scarcely within reach; but a tenaculum introduced by the side of my finger enabled me to bring down and secure the bleeding arteries, which I did successively. By a little stimulus he was revived, and his recovery took place without a single untoward symptom.

May, 1846.

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